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**Inland Waters Directorate
Western and Northern Region**

**Direction générale des eaux intérieures
Région de l'ouest et du nord**



90-06749/

WATER QUALITY BRANCH
WESTERN AND NORTHERN REGION

STATION PROFILES

PREFACE

Monitoring of water quality by the federal government is mainly limited to matters of national interest including interprovincial and international waters, national parks, northern territories and transboundary issues. In addition the collection of water quality data is carried out by means of agreements between the provinces and the federal government.

This document, entitled "Station Profiles" serves as an information source to Water Quality Branch monitoring activities. Both active and discontinued water quality sites are referenced. The information contained herein is subject to annual updating (November).

This document is not intended to stand alone but should be used in conjunction with the annual "Project Description" book of the Branch (prepared in March) which provides the reader with a description of the resources, objectives, sampling parameters and other pertinent information for all projects within the WQB-W&NR. The map reference numbers used in this book are taken from Appendix A of the "Project Description" book.

Wm. D. Gummer
Chief
Water Quality Branch

November 1, 1988

WATER QUALITY BRANCH - WESTERN AND NORTHERN REGION
STATION PROFILES

ALBERTA WATER QUALITY MONITORING SITES

Map of Alberta Water Quality Monitoring Sites
An Introduction to the Alberta Water Quality Monitoring Sites

(stations are in alphabetical order)

Athabasca R at Hwy 16 Bridge below Confluence with Snaring R
Athabasca River at Highway 93A, Athabasca Falls
Beaver River at Beaver Crossing
Belly River at Highway 6
Bow River approximately 4.5 km above Canmore
Bow River at Highway 1 above Lake Louise
Milk River near Eastern Crossing of International Boundary
Milk River near Western Crossing of International Boundary
North Milk River near the International Boundary
North Saskatchewan River at Whirlpool Point
Peace River at Highway 2, Dunvegan
Red Deer River at Bindloss
Slave River at Fitzgerald
South Saskatchewan River at Highway 41
St. Mary River near International Boundary
Waterton River at Hwy. 6 near Waterton Lakes National Park

SASKATCHEWAN WATER QUALITY MONITORING SITES

Map of Saskatchewan Water Quality Monitoring Sites
An Introduction to the Saskatchewan Water Quality Monitoring Sites

(stations are in alphabetical order)

Battle Creek near International Boundary
Battle River near Unwin
Carrot River at Turnberry
Churchill River at Otter Rapids
Churchill River at Patuanak
Churchill River below Wasawakasik Lake
East Poplar River at International Boundary
Fond du Lac River at Outlet of Black Lake
Frenchman River at 49th Parallel
Geikie River Below Junction of Wheeler River
Lodge Creek near Willow Creek at Highway 21
North Saskatchewan River at Highway 17
Qu'Appelle River 3.2km South of Welby
Red Deer River near Erwood
Saskatchewan River above Carrot River
Souris River 16km South of Glen Ewen

MANITOBA WATER QUALITY MONITORING SITES

Map of Manitoba Water Quality Monitoring Sites
An Introduction to the Manitoba Water Quality Monitoring Sites

(stations are in alphabetical order)

Aiken River Inlet to Split Lake
Burntwood River above Threepoint Lake
Burntwood River at Inlet to Split Lake
Burntwood River at Outlet of Threepoint Lake
Burntwood River near Thompson
Churchill River above Red Head Rapids
Cochrane River near Brochet
Footprint River above Footprint Lake
Hayes River below junction with Gods River
Jack River above Norway House (West Channel)
Manigotagan River at Highway 304 bridge
Nelson River at Outlet of Split Lake
Nelson River below Confluence with Grass River
Nelson River below Kettle Generating Station
Nelson River below Sea River Falls
Pembina River at Windygates
Pipestone Creek, 0.4 km from Cromer on Highway #255
Rat River above Threepoint Lake
Red River at Emerson
Roseau River at Gardenton
Saskatchewan River above Carrot River
Souris River at Coulter, Highway #255
Winnipeg River at Pointe Du Bois

DISCONTINUED WATER QUALITY MONITORING SITES

Appendix A - Alberta

Appendix B - Saskatchewan

Appendix C - Manitoba

ALBERTA
WATER QUALITY SITES

WQB - W&NR

Alberta District Office
Water Quality Branch
Rm. 854, 220 - 4th Avenue S.E.
Bag 2909, Postal Station "M"
Calgary, Alberta
T2P 2M7
(403) 292-5320



ALBERTA WATER QUALITY MONITORING

PROJECT 311 -- Federal Monitoring in Alberta

1. Milk River near Eastern Crossing of International Boundary
2. Milk River near Western Crossing of International Boundary
3. North Milk River near the International Boundary
4. St. Mary River near International Boundary
5. Belly River at Highway 6
6. Waterton River at Hwy. 6 near Waterton Lakes National Park
43. Peace River at Highway 2, Dunvegan

Samples are collected monthly for a wide variety of parameters. Unusual values may be followed up with re-surveys. Governments concerned are notified of potential and real problems.

PROJECT 314 -- National Parks Monitoring Agreements

44. Bow River at Highway 1 above Lake Louise
45. Bow River approximately 4.5 km above Canmore
46. North Saskatchewan River at Whirlpool Point
47. Athabasca River at Highway 93A, Athabasca Falls
48. Athabasca River at Highway 16 Bridge below Confluence with Snaring River

This network was established to determine surface water quality, identify potential issues and to provide a basis for the management of Park waters. These monitoring sites are also of significance as they are the headwaters of major river systems. Stations are sampled monthly.

PROJECT 315 -- Prairie Provinces Water Board Monitoring (ALBERTA-SASKATCHEWAN boundary)

22. South Saskatchewan River at Highway 41
23. Red Deer River at Bindloss
24. Beaver River at Beaver Crossing

Two other sites along the Alberta-Saskatchewan border are described in the Saskatchewan section of this book. For these interprovincial rivers the Water Quality Branch provides data, interpretation, and advice to the Prairie Provinces Water Board (PPWB). Stations are sampled monthly.

PROJECT 392 -- Interjurisdictional Network Monitoring by WRB

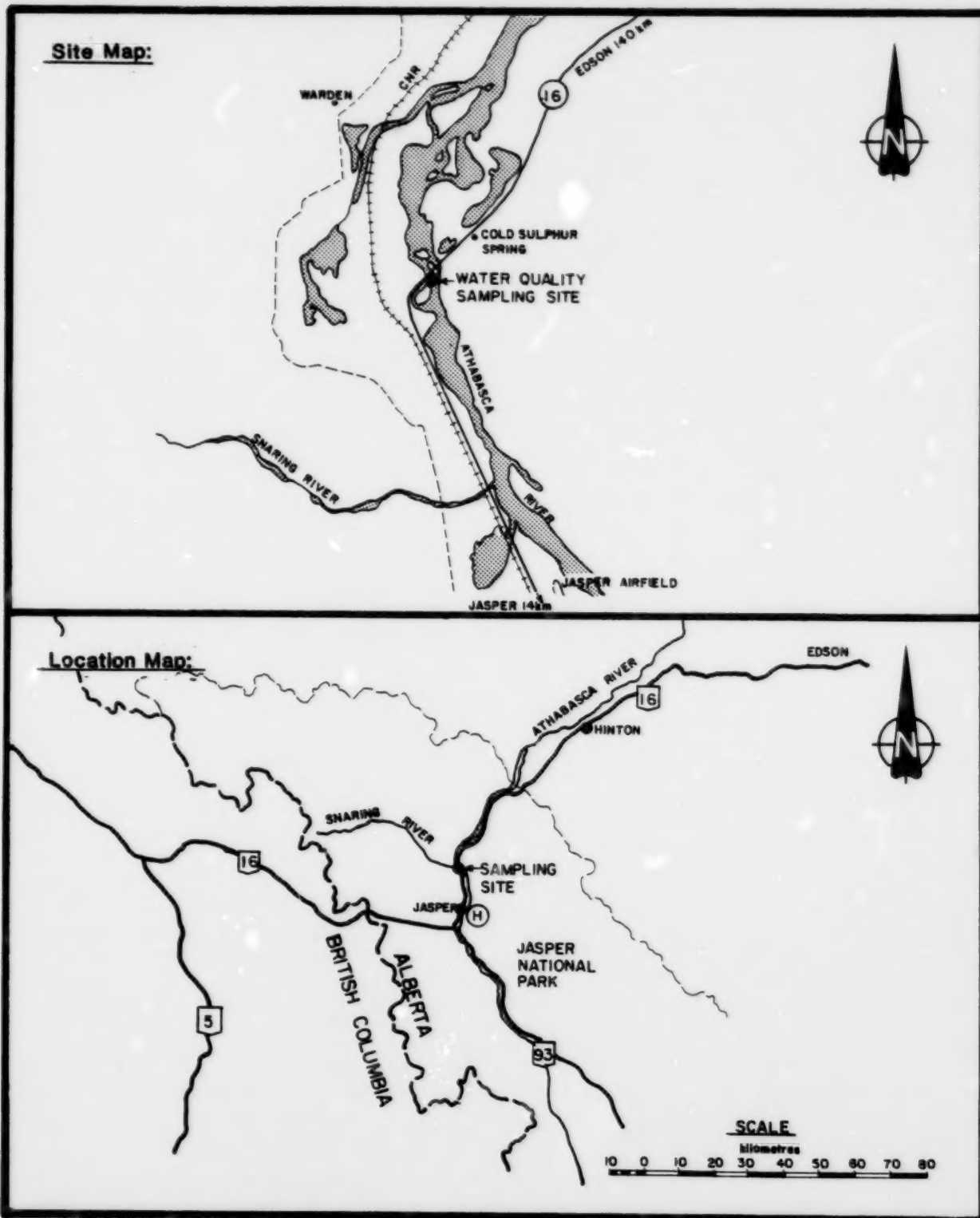
49. Slave River at Fitzgerald

This interjurisdictional site is monitored on a monthly basis. from the Northwest Territories Programs office in Yellowknife.

STATION PROFILE SITE and LOCATION MAPS

Athabasca River at Hwy 16 Bridge below confluence with Snaring River

NAQUADAT NUMBER: 00AL07AA0023



 STATION PROFILE

STATION NAME: Athabasca River at Highway 16 Bridge below confluence
 with Snaring River, ALBERTA

NAQUADAT NUMBER: 00AL07AA0023
 PROJECT REFERENCE NUMBER:

WSC REFERENCE NUMBER: -----
 SUBMITTER I.D.:

LOCATION: Latitude: 53~ 02' 30" Longitude: 118~ 05' 13"

Sampling location at bridge on Highway 16 north of Jasper, Alberta,
 approximately 3.4 km north of the Snaring River bridge.

Sampled midstream of left channel. Ice conditions extremely
 variable from open water (year round) to 0.8 metres in mid-winter.
 Water depth may be greater than 2 metres.

Usually moderate to strong winds at site.

Algae on shore rocks during the summer.

STATION ESTABLISHED: June 13, 1973

PERIOD OF RECORD: 73-

STATION TYPE: National Parks; Network (1976-77)

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	9-13	7.9-8.5	0.5-100	120 - 300	
SPRING -	9-13	7.9-8.5	0.5-100	120 - 300	
SUMMER -	9-13	7.9-8.5	0.5-100	120 - 300	
FALL -	9-13	7.9-8.5	0.5-100	120 - 300	

Bacteria levels highest in January and summer to early fall months.

ISSUES:

- Effluents from Jasper townsite
- Effects from campgrounds and related tourist activities in
 National Park.

REPORTS AVAILABLE FOR THIS SITE:

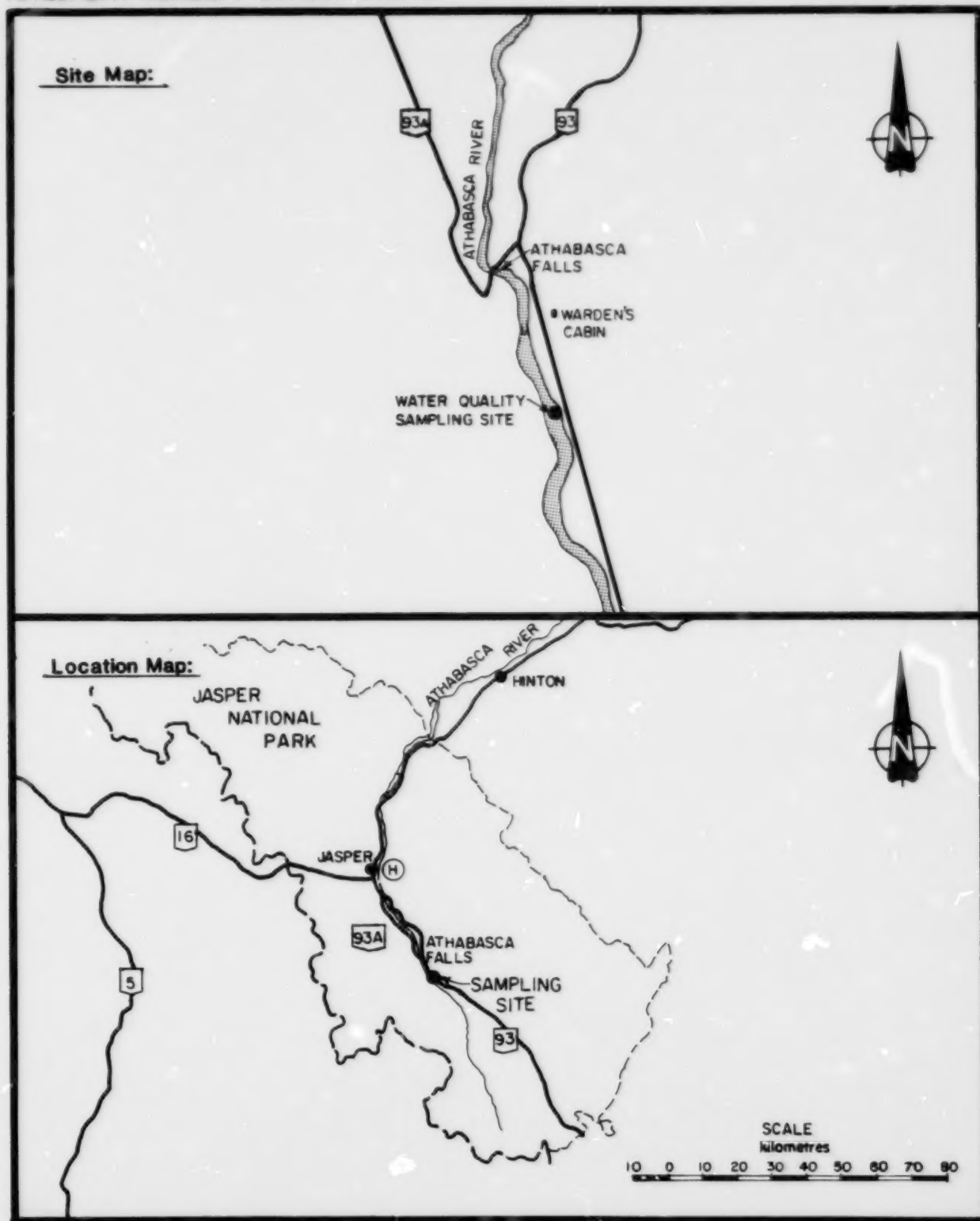
PREPARED OR REVISED BY: H. Block

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Athabasca River at Hwy 93A, Athabasca Falls

NAQUADAT NUMBER: 00AL07AA0015



 STATION PROFILE

STATION NAME: Athabasca River at Highway 93A, Athabasca Falls,
 ALBERTA

NAQUADAT NUMBER: 00AL07AA0015
 PROJECT REFERENCE NUMBER:

WSC REFERENCE NUMBER: -----
 SUBMITTER I.D.:

LOCATION: Latitude: 52~ 39' 51" Longitude: 117~ 52' 50"

Sampling location is approximately 1 km above Athabasca Falls at the first point above the falls where the highway nears the river. Approximately 37 km south of Jasper, Alberta.

Sampled near right bank from shore rocks or by wading depending on water level and velocity.

Usually open water year round, however may be bridged with rotten ice. Ice at edge is often shelved and sloping to water.

STATION ESTABLISHED: August 31, 1972

PERIOD OF RECORD: 1972-

STATION TYPE: National Parks; network (1976-77)

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	9-13	7.9-8.3	<0.2-120	125 - 330	
SPRING -	9-13	7.9-8.3	<0.2-120	125 - 330	
SUMMER -	9-13	7.9-8.3	<0.2-120*	125 - 330	
FALL -	9-13	7.9-8.3	<0.2-120	125 - 330	

* highest during June/July

ISSUES:

- Headwater background station.
- Developments upstream on Sunwapta River tributary: Icefields Chalet, Snowmobile Tours and Sunwapta Bungalows.
- Possible impact of tourist activities in National Park.

REPORTS AVAILABLE FOR THIS SITE:

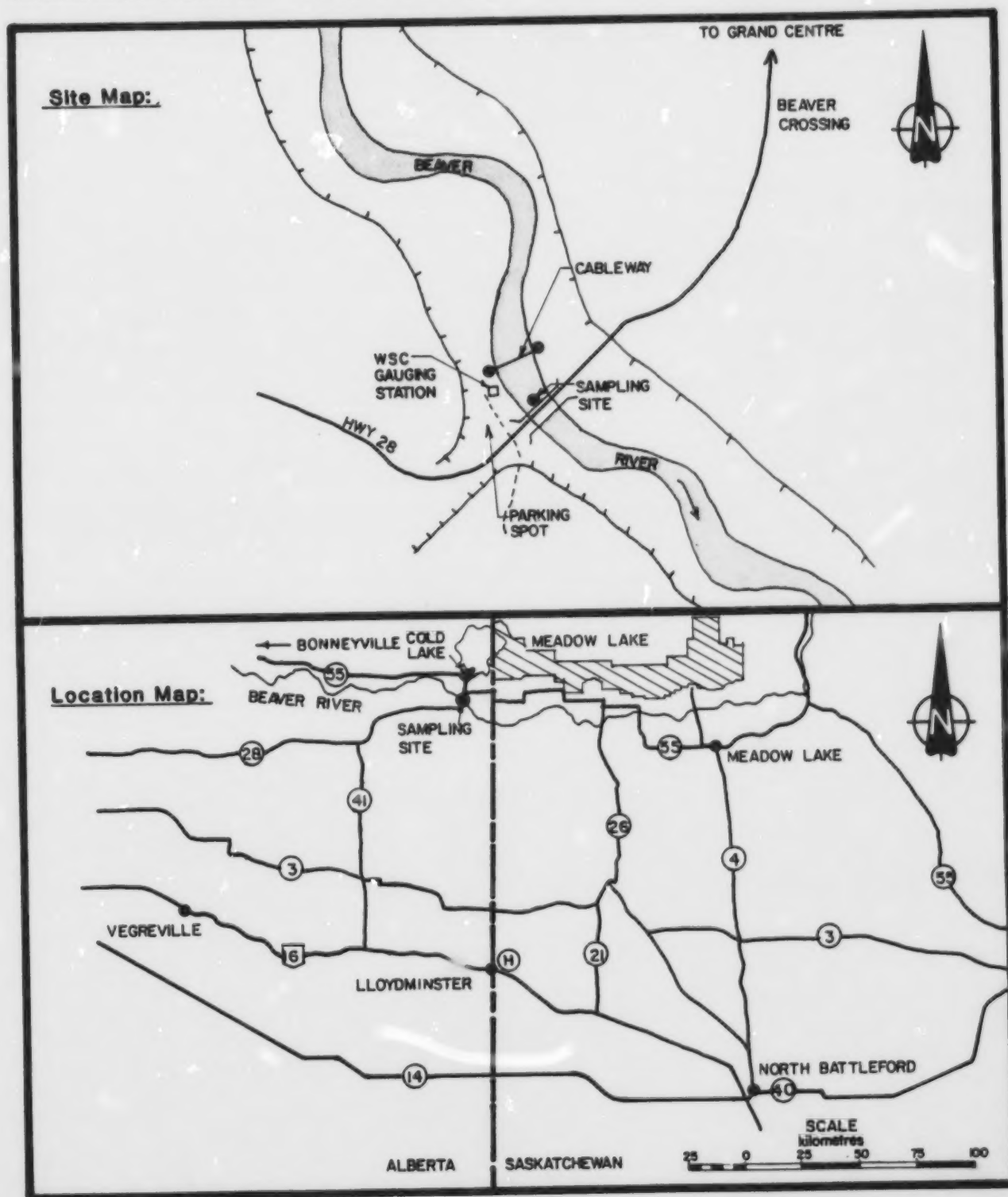
PREPARED OR REVISED BY: H. Block

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Beaver River at Beaver Crossing, Alberta

NAQUADAT NUMBER: 00A106AD0001



 STATION PROFILE

STATION NAME: Beaver River at Beaver Crossing, Alberta

NAQUADAT NUMBER: 00AL06AD0001
 PROJECT REFERENCE NUMBER: 315-88

WSC REFERENCE NUMBER: -----
 SUBMITTER I.D.: 462 (1972-)

LOCATION: Latitude: 54~ 21' 15" Longitude: 110~ 12' 42"

Sampling location is near the bridge on highway 28 approximately 2 km southwest of Beaver Crossing, Alberta.

Due to recent bridge construction sampling takes place upstream of the bridge and are waded at the same location as when ice-covered. During ice-cover, samples are taken 10 m upstream (north) of the bridge.

Jet aircraft frequently flying overhead.

STATION ESTABLISHED:

PERIOD OF RECORD: (April 1974 - Ongoing)

STATION TYPE: Network, heavy metal & herbicide, PPWB.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	5.2	7.4	5.0	450	0
SPRING -	10.0	7.8	10.0	200	10
SUMMER -	7.7	8.1	10.0	355	19
FALL -	12.0	7.6	5.0	400	6

ISSUES:

- Major interprovincial river monitored for PPWB
- Potential for trans-basin water transfer to service heavy oil industry

REPORTS AVAILABLE FOR THIS SITE:

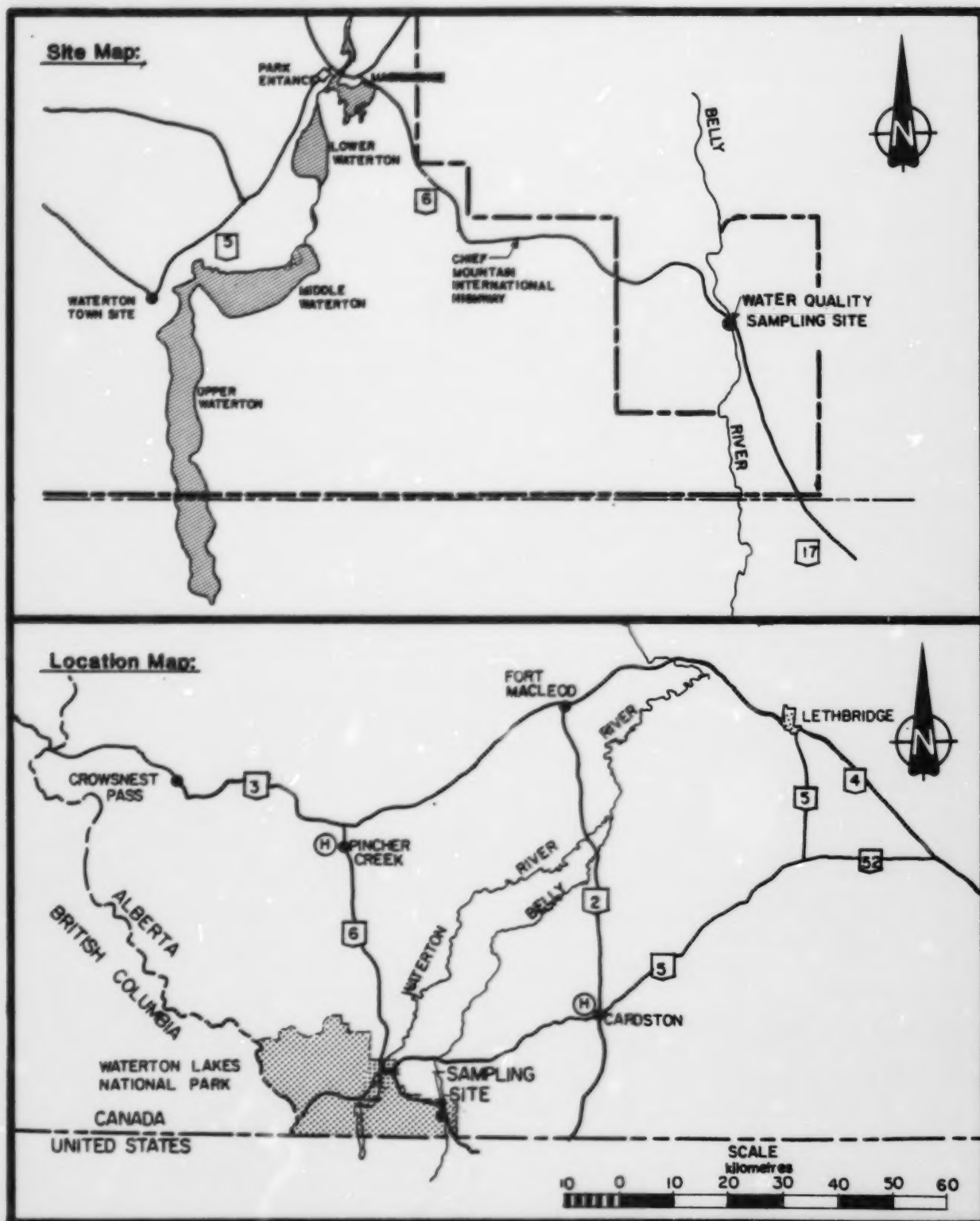
PREPARED OR REVISED BY: P.W. Neil

DATE: July 6, 1988

STATION PROFILE SITE and LOCATION MAPS

Belly River at Hwy 6

NAQUADAT: 00AL05AD0060



STATION PROFILE

STATION NAME: Belly River at Highway 6, ALBERTA

NAQUADAT NUMBER: 00AL05AD0060
PROJECT REFERENCE NUMBER: 304

WSC REFERENCE NUMBER: -----
SUBMITTER I.D.:

LOCATION: Latitude: 49~ 03' 06" Longitude: 113~ 41' 07"

Sampling location is at bridge on Highway 6 (Chief Mountain Highway) approximately 17 km from Highway 5 junction. Access in winter may only be through Birdseye Butte Road (enter from Highway 5 approximately 2 km west of Belly River bridge west of Mountain View, Alberta).

Sampled by wading from left bank. Usually open water year round. Winter Access may be difficult or impossible due to road and snow conditions.

STATION ESTABLISHED: January 8, 1974

PERIOD OF RECORD: 1974-

STATION TYPE: National Parks (1974-76), Interjurisdictional (1976-)

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	8.5-13	7.6-8.5	0.2-25	135 - 250	
SPRING -	8.5-13	7.6-8.5	0.2-25	135 - 250	
SUMMER -	8.5-13	7.6-8.5	0.2-25	135 - 250	
FALL -	8.5-13	7.6-8.5	0.2-25	135 - 250	

ISSUES:

- Interjurisdictional station.
- Headwaters type for National Park.
- Indian Reservation, timber and oil lease on land along left bank.

REPORTS AVAILABLE FOR THIS SITE:

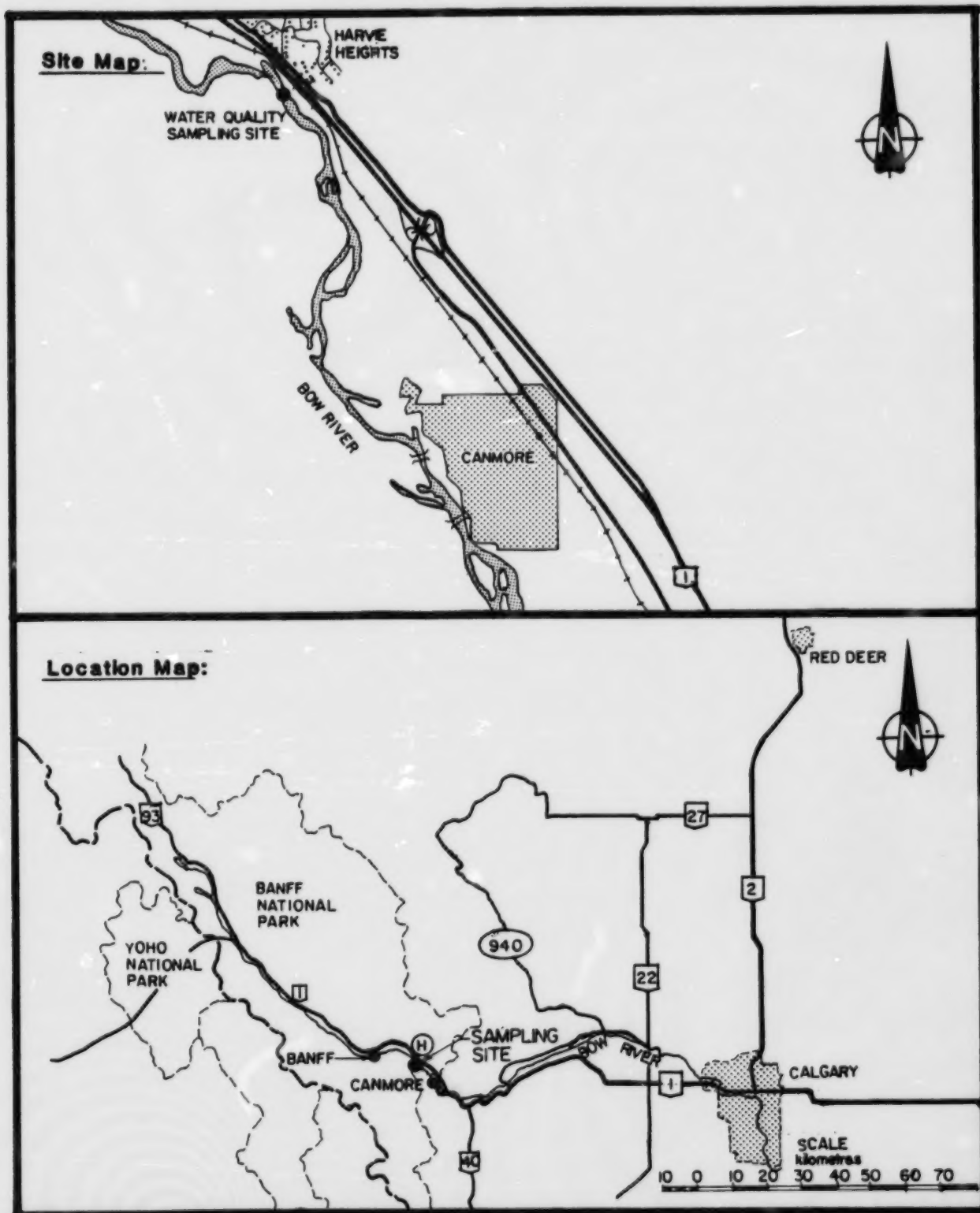
PREPARED OR REVISED BY: H. Block

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Bow River approx. 4.5 km above Canmore

NAQUADAT NUMBER: 00AL05BE0013



 STATION PROFILE

STATION NAME: Bow River approximately 4.5 km above Canmore, ALBERTA

NAQUADAT NUMBER: 00AL05BE0013
 PROJECT REFERENCE NUMBER:

WSC REFERENCE NUMBER: -----
 SUBMITTER I.D.:

LOCATION: Latitude: 51~ 07' 22" Longitude: 115~ 23' 12"

Sampling location is reached by walking across railway tracks at the point directly across from Shell service station sign at Harvie Heights, then via trail through willows to steep bank.

Sampled by wading above island. Usually open water year round. Check for thin or shelved ice at shore. Watch for rising water levels.

Algae on bottom rocks, slippery when wading.

STATION ESTABLISHED: June 20, 1973

PERIOD OF RECORD: 1973-76, 1978-

STATION TYPE: National Parks

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	8-13	7.5-8.6	0.1-15	190 - 375	
SPRING -	8-13	7.5-8.6	0.1-15	190 - 375	
SUMMER -	8-13	7.5-8.6	0.1-15	190 - 375	
FALL -	8-13	7.5-8.6	0.1-15	190 - 375	

Bacteria counts may be high after rainstorms and during high tourist seasons, December to March and May to October.

ISSUES:

- Parks boundary station.
- Impact of tourist activities within park.
- Effluent from Banff townsite sewage treatment plant.

REPORTS AVAILABLE FOR THIS SITE:

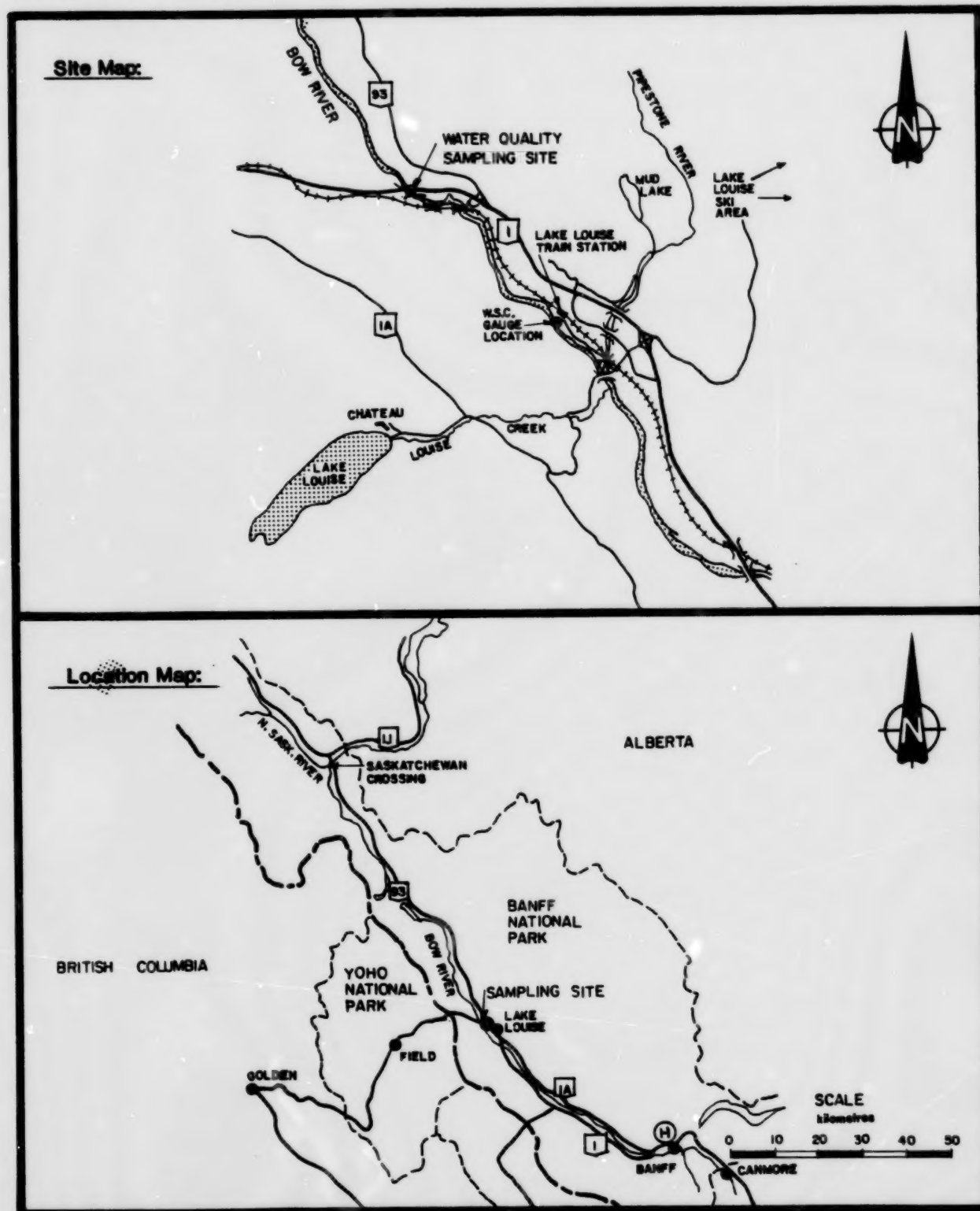
PREPARED OR REVISED BY: H. Block

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Bow River at Hwy 1 above Lake Louise

NAQUADAT NUMBER: 00AL05BA0011



 STATION PROFILE

STATION NAME: Bow River at Highway 1 above Lake Louise, ALBERTA

NAQUADAT NUMBER: 00AL05BA0011
 PROJECT REFERENCE NUMBER:

WSC REFERENCE NUMBER: 05BA001
 SUBMITTER I.D.:

LOCATION: Latitude: 51~ 26' 35" Longitude: 116~ 12' 42"

Sampling location is at the Highway 1 bridge approximately 0.8 km west of the Highway 93 North (to Jasper) interchange.

Sampled by wading in summer upstream of bridge. Winter sample taken through ice in thin ice channel UNDERNEATH bridge. DO NOT attempt to take sample from open leads either upstream or downstream of bridge. Heavy snow accumulations do not allow the formation of thick, solid ice leading to these areas.

STATION ESTABLISHED: June 2, 1975

PERIOD OF RECORD: 1975-

STATION TYPE: National Parks (1975-76,1978-), network (1976-77)

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	8.5-13	7.9-8.3	<0.1-5	130 - 300	
SPRING -	8.5-13	7.9-8.3	<0.1-5	130 - 300	
SUMMER -	8.5-13	7.9-8.3	<0.1-5	130 - 300	
FALL -	8.5-13	7.9-8.3	<0.1-5	130 - 300	

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1910-20, 1923-30, 1964-

SEDIMENT DATA: Not available

ISSUES:

- Headwaters, background station.
- Developments upstream: Num-ti-jah Lodge at Bow Lake; campground and hostel at Mosquito Creek.
- Possible impact of tourist activities in National Parks.

REPORTS AVAILABLE FOR THIS SITE:

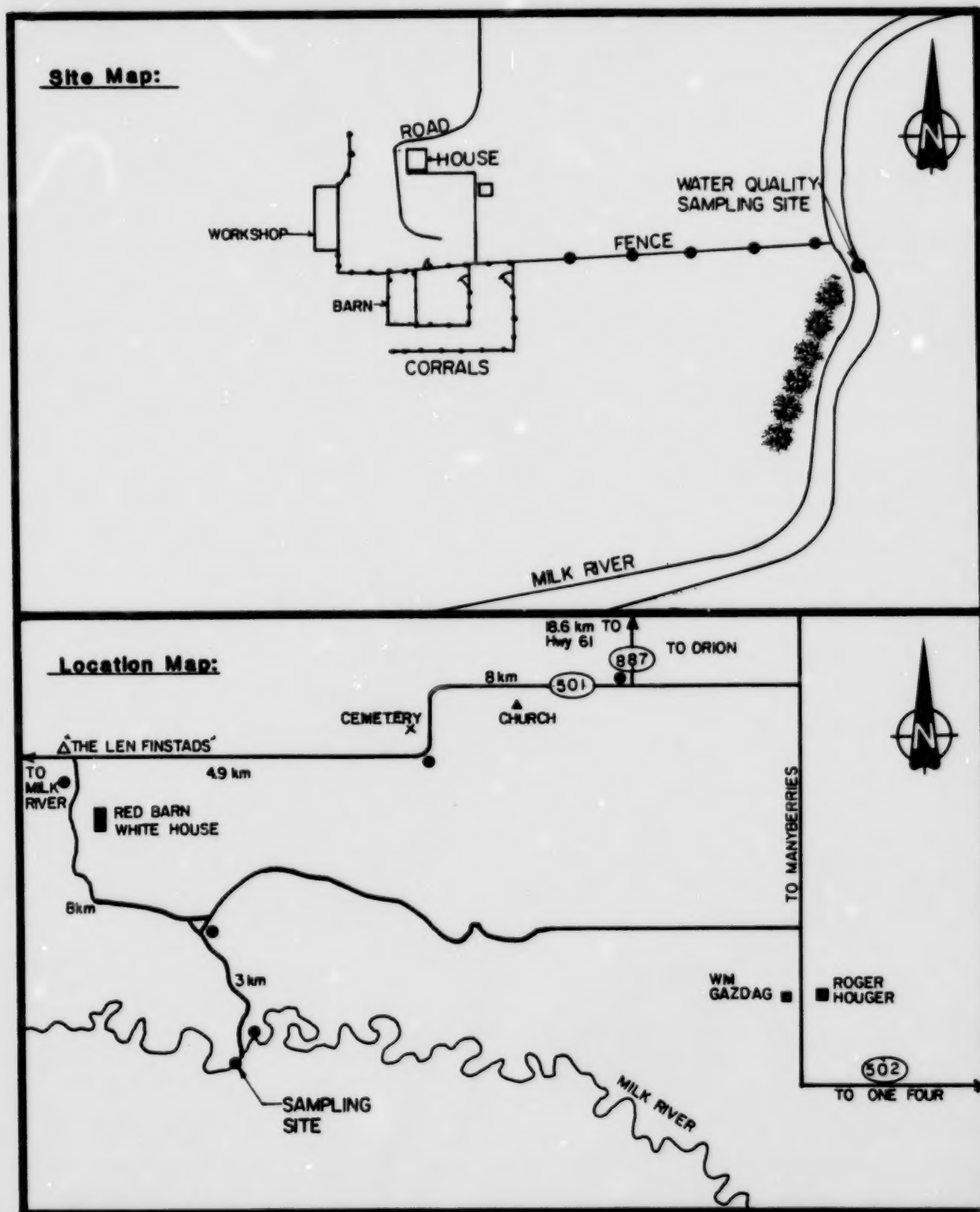
PREPARED OR REVISED BY: H. Block

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Milk River near Eastern Crossing of International Boundary

NAQUADAT NUMBER: 00AL11AA0003



STATION PROFILE

STATION NAME: Milk River near Eastern Crossing of International Boundary, ALBERTA.

NAQUADAT NUMBER: 00AL11AA0003
PROJECT REFERENCE NUMBER: 304

WSC REFERENCE NUMBER: 11AA031
SUBMITTER I.D.:

LOCATION: Latitude: 49~ 07' 27" Longitude: 110~ 53' 39"

Sample location SE of ranch headquarters of Pinhorn Grazing Reserve, 11 km south of Highway 501, approx. 5 km west of Pendant Oreille Cemetery. Turn south at mailbox "The Len Finstads."

Sampled by wading just upstream of fence-line running east from corrals by east side of main barn. Be sure to close corral gates. Watch for bulls in field. Rattle snakes have been sighted in this area. Watch for quicksand and holes in river bottom when wading. Main channel is usually along right bank. Very low winter flows.

STATION ESTABLISHED: August 25, 1960

PERIOD OF RECORD: 1960-

STATION TYPE: Interjurisdictional

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	2-13	7.5-9	<0.1-1400	160-1900*	
SPRING -	2-13	7.5-9	<0.1-1400	160-1900	
SUMMER -	2-13	7.5-9	<0.1-1400	160-1900	
FALL -	2-13	7.5-9	<0.1-1400	160-1900	

* specific conductance is highest in winter low flow period.

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1909-

SEDIMENT DATA: 1975-76

ISSUES:

- Monitored for international water transfers.
- Development of irrigation dam upstream.

REPORTS AVAILABLE FOR THIS SITE:

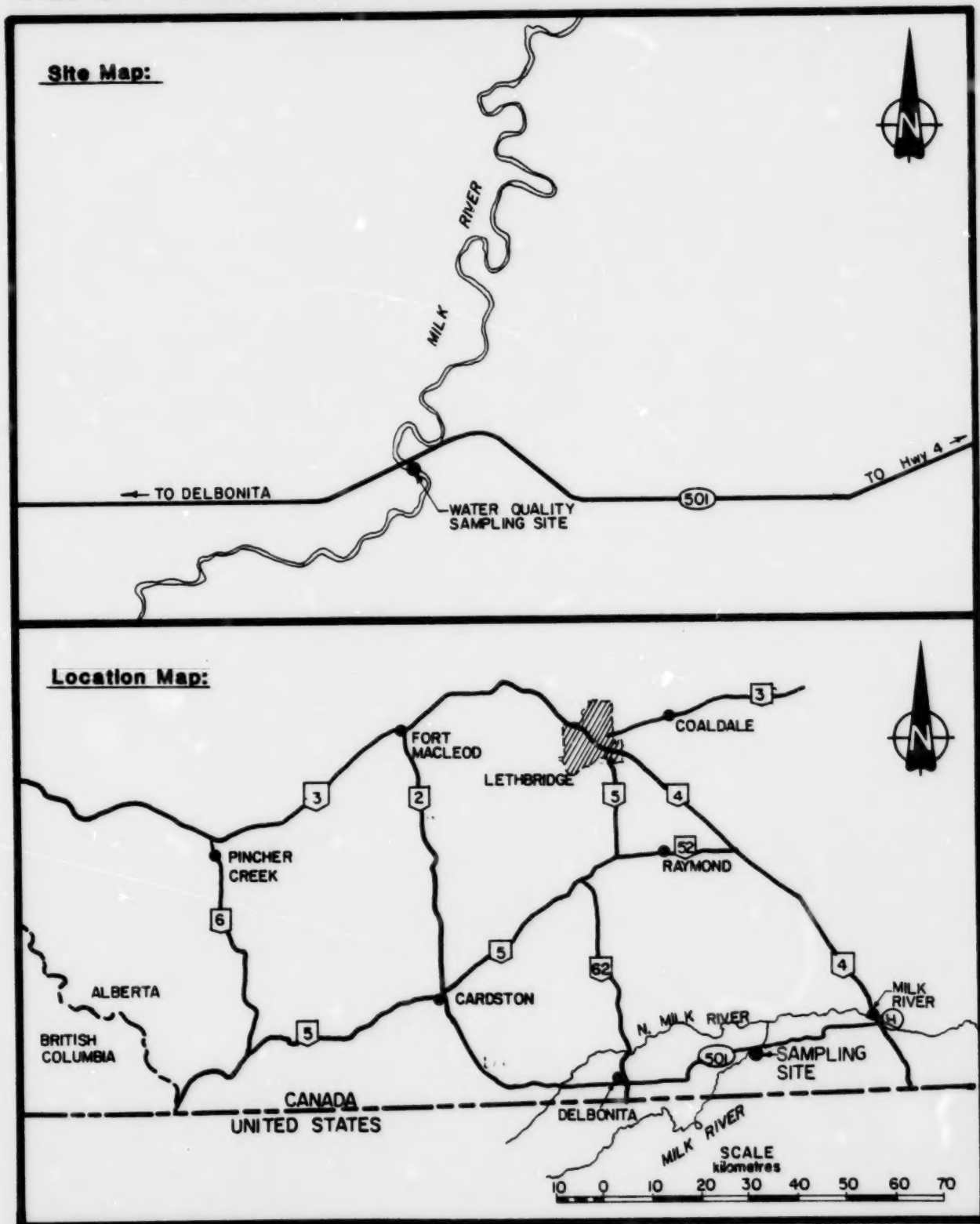
PREPARED OR REVISED BY: H. Block

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Milk River near Western Crossing of International Boundary

NAQUADAT NUMBER: 00AL11AA0002



 STATION PROFILE

STATION NAME: Milk River near Western Crossing of International Boundary, ALBERTA

NAQUADAT NUMBER: 00AL11AA0002
 PROJECT REFERENCE NUMBER: 304

WSC REFERENCE NUMBER: 11AA025
 SUBMITTER I.D.:

LOCATION: Latitude: 49~ 05' 22" Longitude: 112~ 24' 06"

Sampling location is at bridge on secondary road 501, approximately 27.5 km west of junction with Highway 4.

Sampled in summer by wading upstream of bridge. Ice conditions variable from dangerously thin, to greater than 1 metre throughout the same winter. May have little or no flow from July to November.

STATION ESTABLISHED: April 6, 1960

PERIOD OF RECORD: 1960-64, 1967-

STATION TYPE: Interjurisdictional

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	8-13	7.5-9	<0.1-370	300-1250	
SPRING -	8-13	7.5-9	<0.1-370	300-1250	
SUMMER -	8-13	7.5-9	<0.1-370	300-1250	
FALL -	8-13	7.5-9	<0.1-370	300-1250	

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1909-

SEDIMENT DATA: 1974-76

ISSUES:

- Monitored for international water transfers.

REPORTS AVAILABLE FOR THIS SITE:

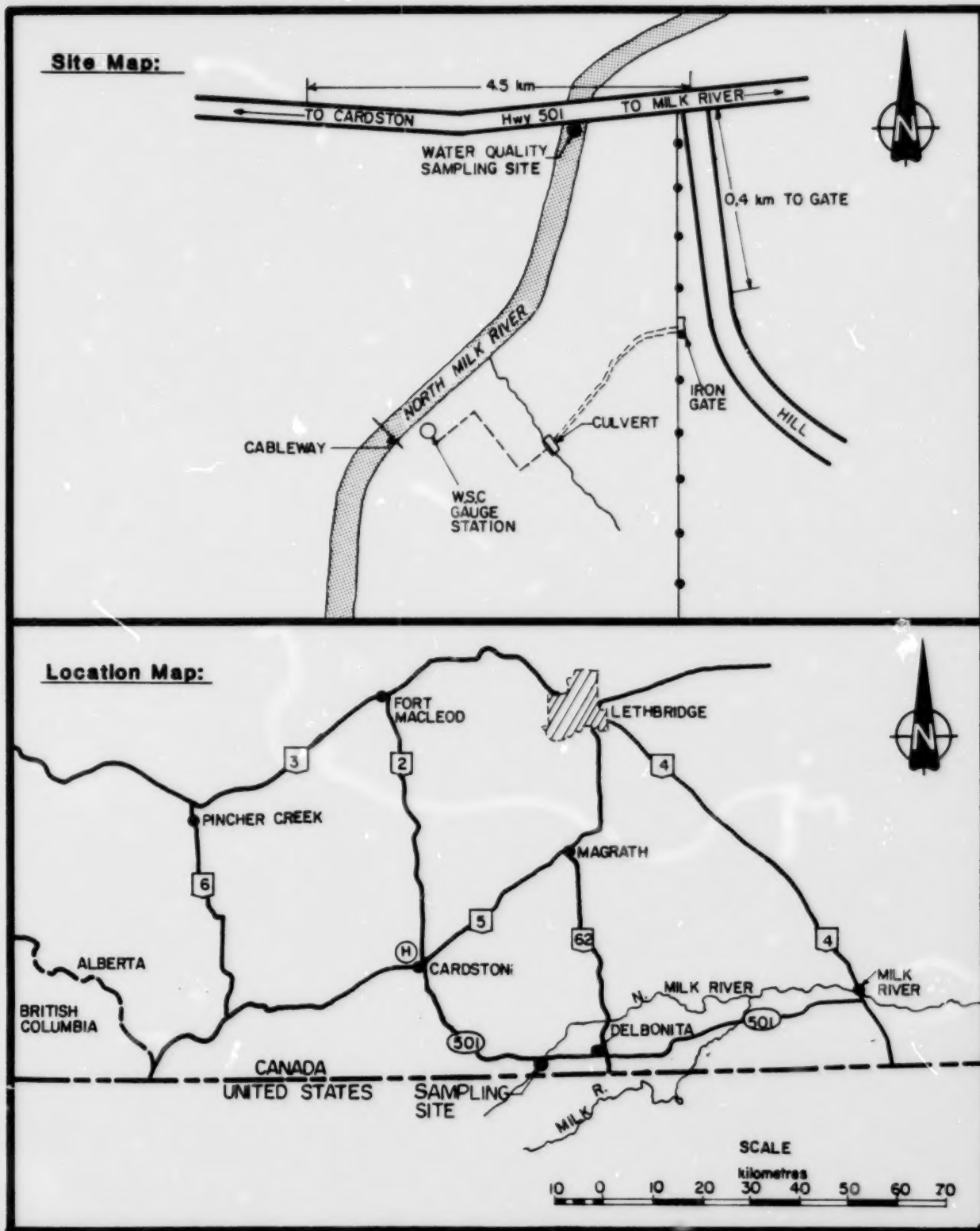
PREPARED OR REVISED BY: H. Block

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

North Milk River near the International Boundary

NAQUADAT NUMBER: 00AL11AA0001



STATION PROFILE

STATION NAME: North Milk River near the International Boundary,
ALBERTA

NAQUADAT NUMBER: 00AL11AA0001
PROJECT REFERENCE NUMBER: 304

WSC REFERENCE NUMBER: 11AA001
SUBMITTER I.D.:

LOCATION: Latitude: 49~ 01' 18" Longitude: 112~ 58' 18"

Sampling location is at bridge on secondary road 501, approximately
14.5 km west of Del Bonita, Alberta.

Sampled by wading upstream of bridge or from bridge during high
water. Rocks covered in algae and may be slippery. Main channel in
winter is near right bank.

STATION ESTABLISHED: April 5, 1960

PERIOD OF RECORD: 1960-

STATION TYPE: Interjurisdictional

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	8-13	7.5-8.5	<0.1-100	115-570	
SPRING -	8-13	7.5-8.5	<0.1-100	115-570	
SUMMER -	8-13	7.5-8.5	<0.1-100	115-570	
FALL -	8-13	7.5-8.5	<0.1-100	115-570	

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1909-

SEDIMENT DATA: 1974-76

ISSUES:

- Monitored for international water transfers.
- Water diversion from St. Mary river.

REPORTS AVAILABLE FOR THIS SITE:

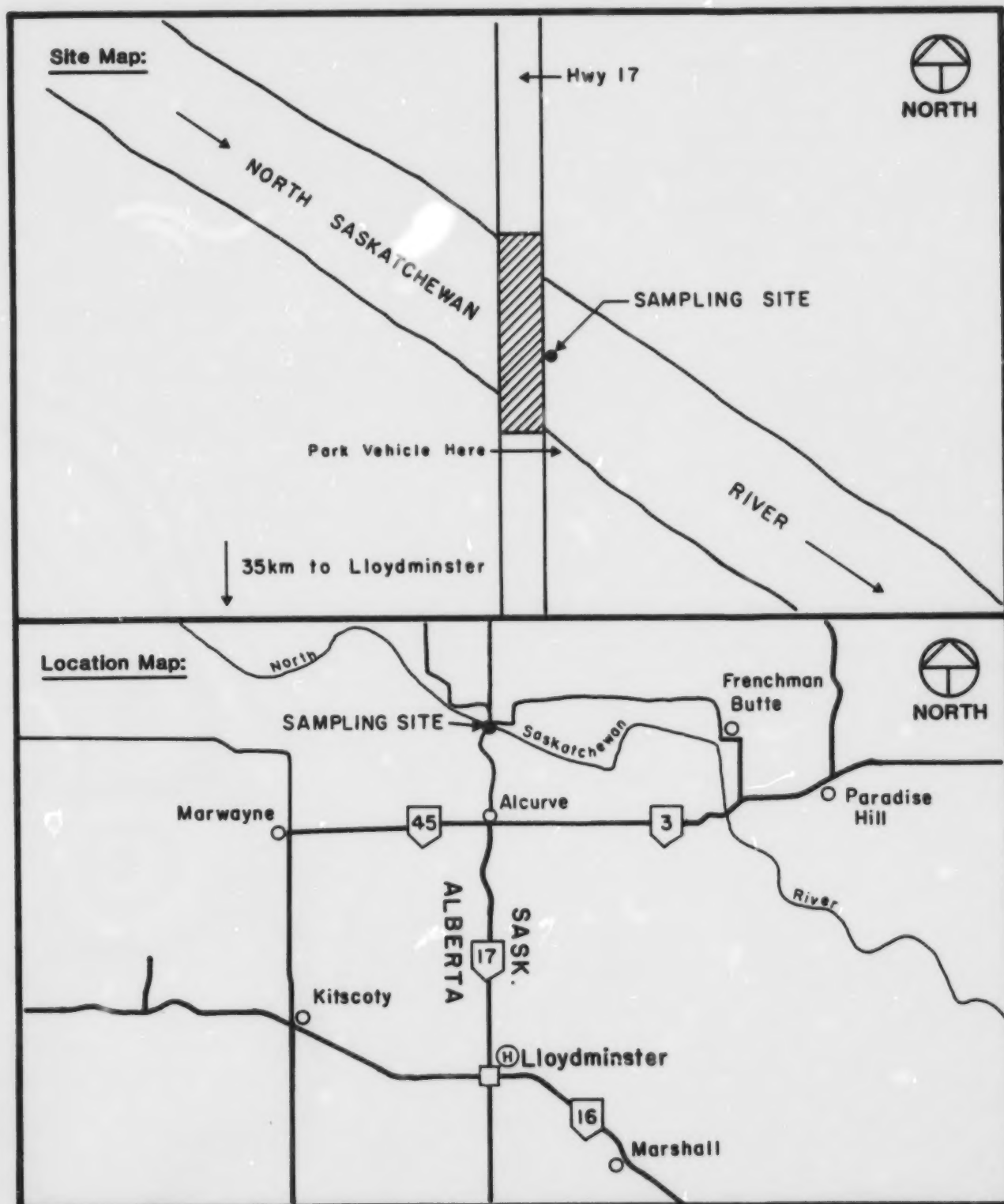
PREPARED OR REVISED BY: H. Block

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

North Saskatchewan River at Hwy 17, ALBERTA

NAQUADAT NUMBER: 00AL05EF0003



STATION PROFILE

STATION NAME: North Saskatchewan River at Hwy 17, ALBERTA

NAQUADAT NUMBER: 05AL05EF0003
PROJECT REFERENCE NUMBER: 315-88

WSC REFERENCE NUMBER:
SUBMITTER I.D.: 462

LOCATION: Latitude: 53~ 36' 05" Longitude: 110~ 00' 00"

Sample at bridge centre on east side. The bridge is roughly 25 meters above the river, hence a long sampling rope must be used.

STATION ESTABLISHED: Replaced location at Lea Park in April 1988.

PERIOD OF RECORD: April 88 - Ongoing

STATION TYPE: Network, heavy metal & herbicide, PPWB.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	8-10	7.5-7.9	< 5	380 - 450	0.5
SPRING -	8-10	7.8-8.4	> 100	350 - 400	4.5
SUMMER -	8-10	8.0-8.5	< 20	300 - 350	20.5
FALL -	10-12	7.9-8.2	< 5	350 - 400	12.5

Algae growth expected during August, oil sheen frequently seen in May

ISSUES:

- Major interprovincial river monitored for PPWB
- Downstream of major urban area (Edmonton)
- Pesticide manufacturing (Fort Saskatchewan)
- Fertilizer plants located at Fort Saskatchewan, Redwater
- Potential for trans-basin water transfer to service heavy oil industry
- Source for domestic water in Lloydminster, North Battleford, Prince Albert.

REPORTS AVAILABLE FOR THIS SITE:

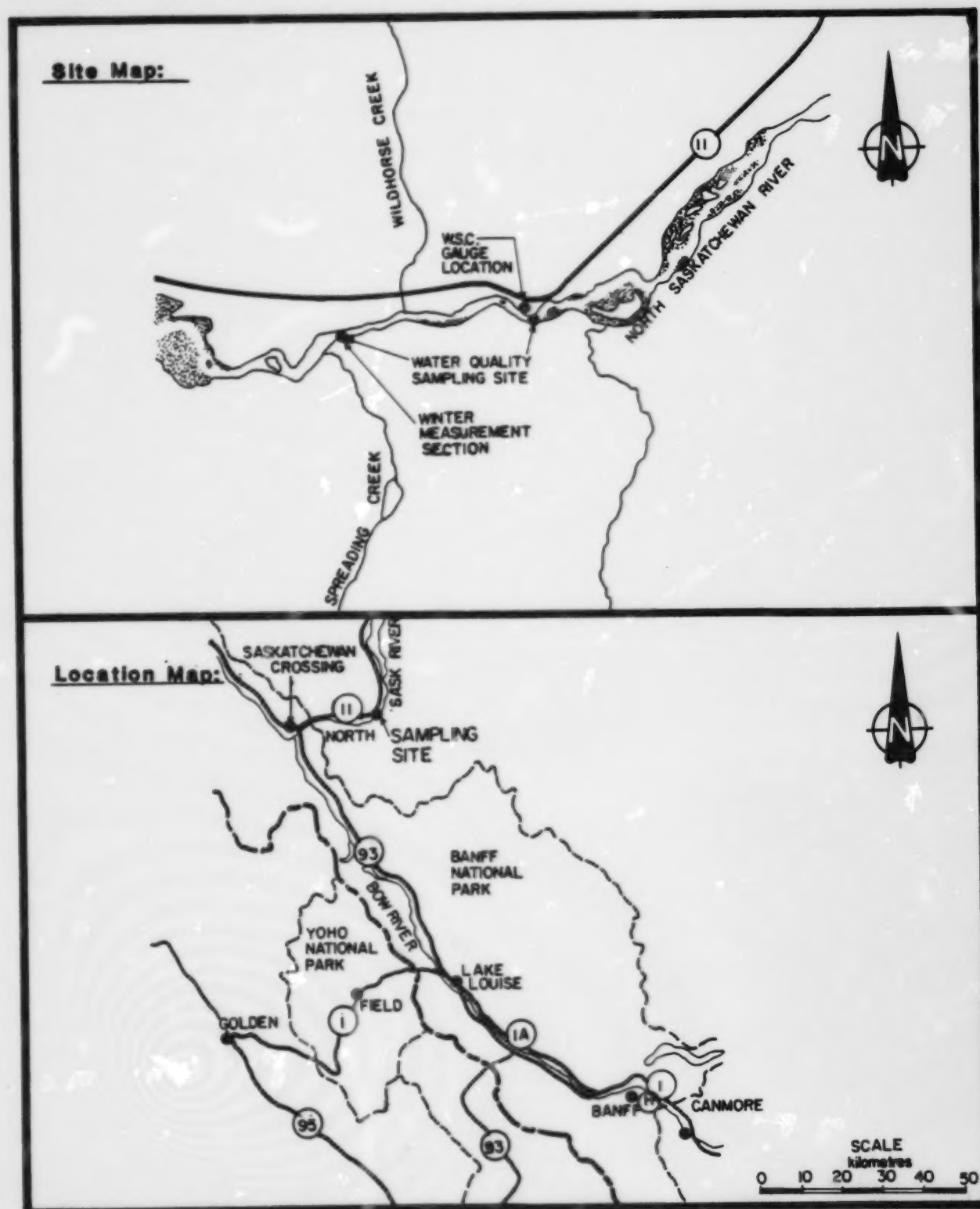
PREPARED OR REVISED BY: P. W. NEIL

DATE: July 7, 1988

STATION PROFILE SITE and LOCATION MAPS

North Saskatchewan River at Whirlpool Point

NAQUADAT NUMBER: 00AL05DA0001



 STATION PROFILE

STATION NAME: North Saskatchewan River at Whirlpool Point, ALBERTA

NAQUADAT NUMBER: 00AL05DA0001

WSC REFERENCE NUMBER: 05DA009

PROJECT REFERENCE NUMBER:

SUBMITTER I.D.:

LOCATION: Latitude: 52~ 00' 10" Longitude: 116~ 28' 18"

Sampling location is approximately 19 km east of Saskatchewan Crossing along Highway 11 at viewpoint.

Sampled from shore below WSC gauge. Winter sampling below whirlpool area, or if ice unsafe by wading at rapids above Wildhorse Creek.

STATION ESTABLISHED: October 28, 1970

PERIOD OF RECORD: 1970-, 1972-73, 1978-

STATION TYPE: Networks, eastern slopes, National Parks

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	8-13	7.8-8.5	<0.1-85	120-320	
SPRING -	8-13	7.8-8.5	<0.1-85	120-320	
SUMMER -	8-13	7.8-8.5	<0.1-85	120-320	
FALL -	8-13	7.8-8.5	<0.1-85	120-320	

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1970-

SEDIMENT DATA: 1972-

ISSUES:

- National Parks Boundary Station
- Developments upstream - Saskatchewan Crossing Hotel and gas station, campground at Thompson Creek.
- Impact of tourist activities within the park.

REPORTS AVAILABLE FOR THIS SITE:

PREPARED OR REVISED BY: H. Block

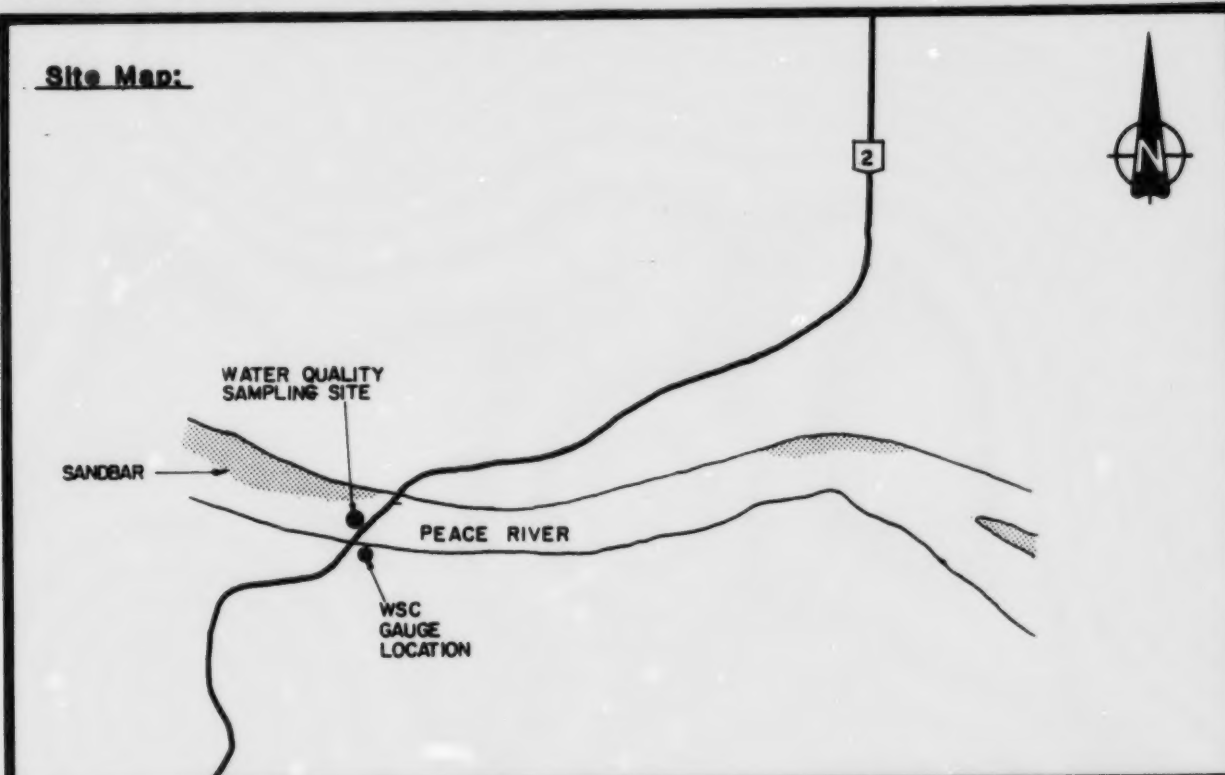
DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

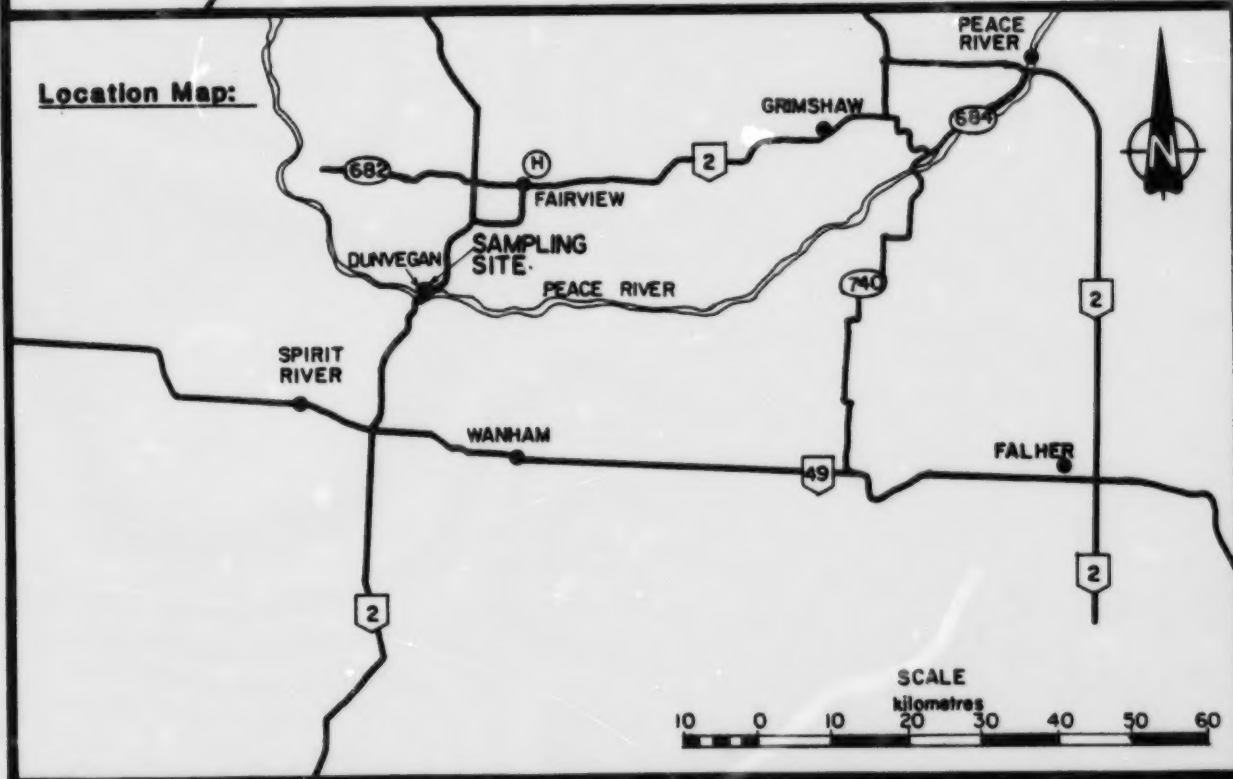
Peace River at Hwy 2 Dunvegan

NAQUADAT NUMBER: 00AL07FD0002

Site Map:



Location Map:



STATION PROFILE

STATION NAME: Peace River at Highway 2, Dunvegan, ALBERTA

NAQUADAT NUMBER: 00AL07FD0002
PROJECT REFERENCE NUMBER:

WSC REFERENCE NUMBER: 07FD003
SUBMITTER I.D.:

LOCATION: Latitude: 55° 55' 18" Longitude: 118° 36' 32"

Sampling location is from Dunvegan suspension bridge on Highway 2,
26 km south of Fairview, Alberta.

STATION ESTABLISHED: August 19, 1969

PERIOD OF RECORD: 1969, 1971-74, 1977-

STATION TYPE: Network, Alberta-Canada Agreement

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	5-15	7.5-8.5		160-275	0-20
SPRING -	5-15	7.5-8.5		160-275	0-20
SUMMER -	5-15	7.5-8.5		160-275	0-20
FALL -	5-15	7.5-8.5		160-275	0-20

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1960-69, 1974-

SEDIMENT DATA: 1975-

ISSUES:

- Hydroelectric Dams, water diversion proposals.

REPORTS AVAILABLE FOR THIS SITE:

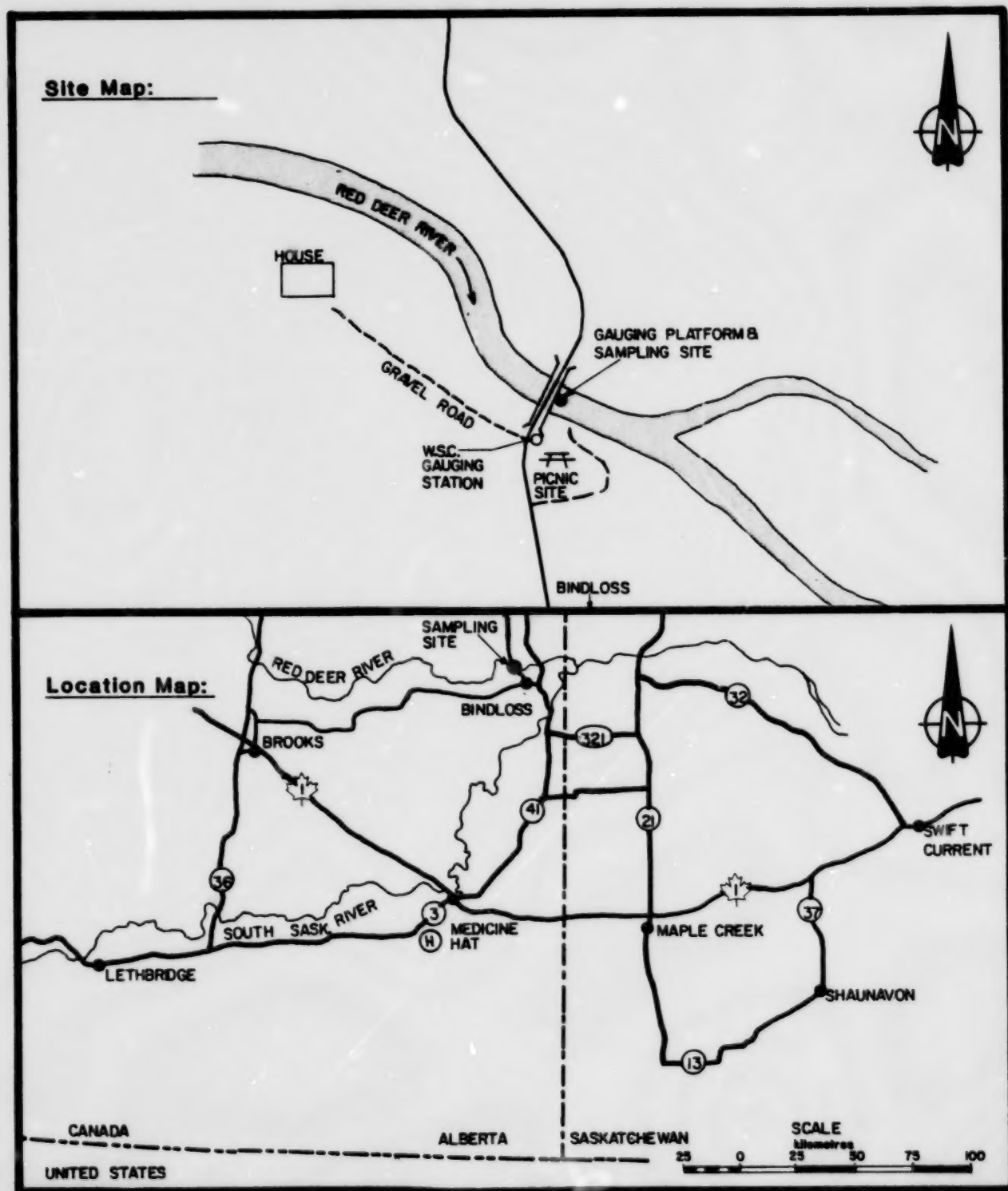
PREPARED OR REVISED BY: H. Block

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Red Deer River at Bindloss, Alberta

NAQUADAT NUMBER: 00AL05CK0001



 STATION PROFILE

STATION NAME: Red Deer River at Bindloss, Alberta

NAQUADAT NUMBER: 00AL05CK0001
 PROJECT REFERENCE NUMBER: 315-87

WSC REFERENCE NUMBER: 05CK004
 SUBMITTER I.D.: 462 (1972-)

LOCATION: Latitude: 50° 54' 10" Longitude: 110° 17' 48"

Sampling location is at bridge on secondary road, northwest of the community of Unwin, approximately 3 km north of the railway line.

Sampled from center stream, downstream of bridge (from water survey platform) during open water. During ice-cover periods, samples taken approx. 40 metres downstream of bridge at channel centre.

STATION ESTABLISHED:

PERIOD OF RECORD:

STATION TYPE: Network, heavy metal & herbicide, PPWB.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	<4.0	7.8	<10	800	0
SPRING -	10.0	8.2	100	450	10
SUMMER -	8.0	8.2	<200	375	20
FALL -	12.0	8.1	20	600	5

Algae growth expected during August
 Oil sheen frequently seen in May

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1960-

SEDIMENT DATA: 1966-

ISSUES:

- Major interprovincial river monitored for PPWB

REPORTS AVAILABLE FOR THIS SITE:

PREPARED OR REVISED BY: P.W. NEIL

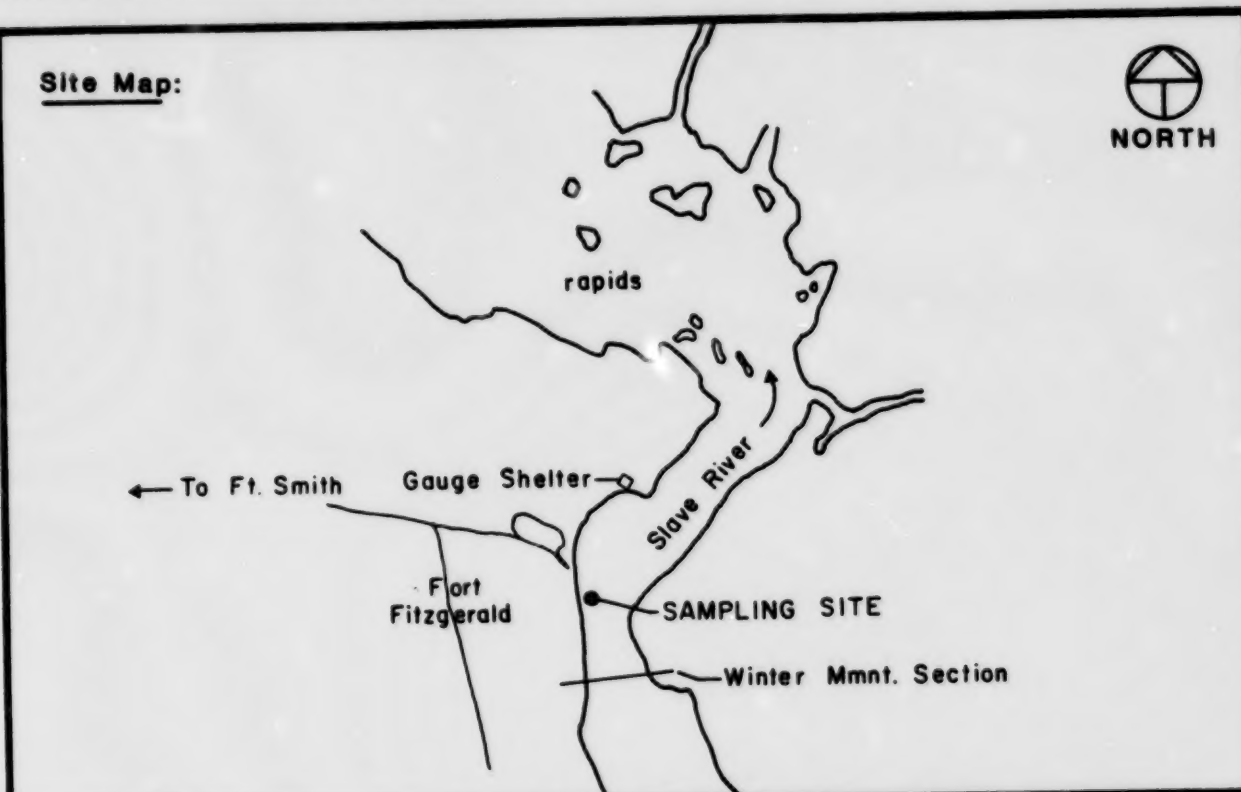
DATE: April 3, 1987

STATION PROFILE SITE and LOCATION MAPS

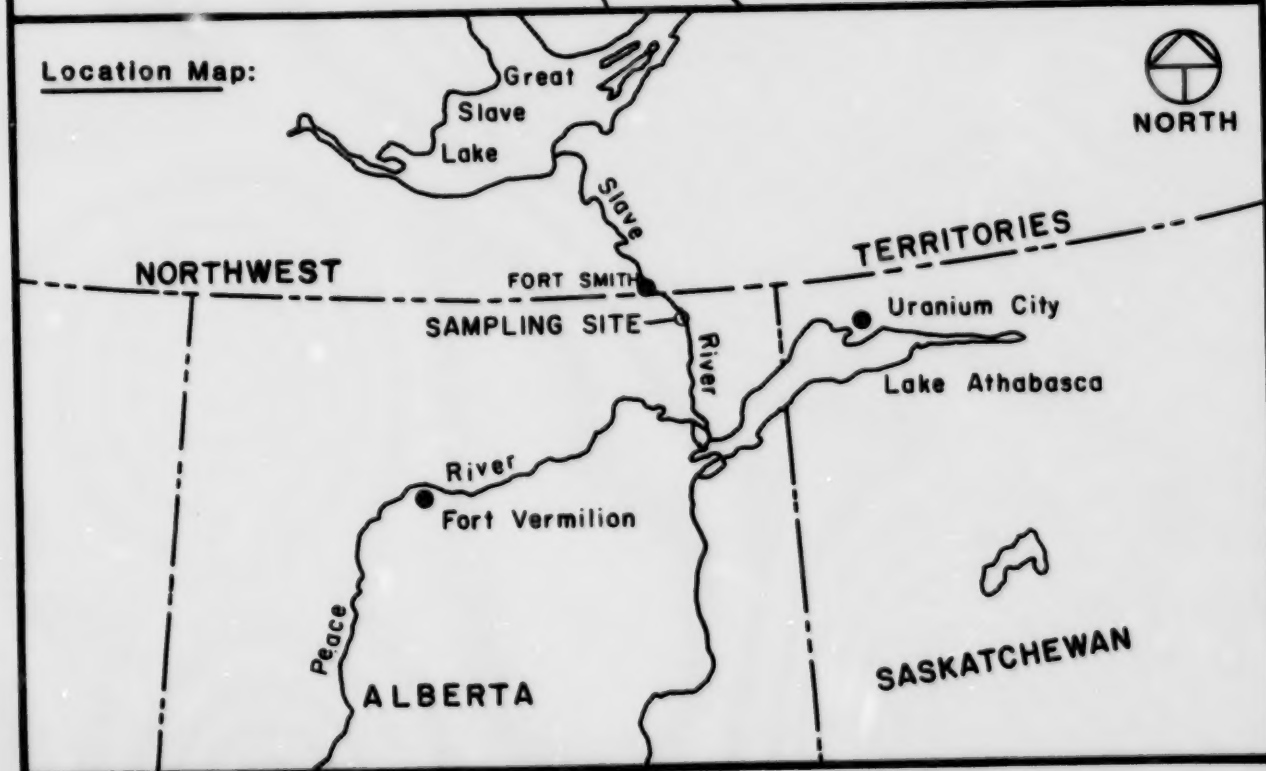
Slave River at Fitzgerald, ALBERTA

NAQUADAT NUMBER: 00AL07NB0001

Site Map:



Location Map:



STATION PROFILE

STATION NAME: Slave River at Fitzgerald, ALBERTA

NAQUADAT NUMBER: 00AL07NB0001
PROJECT REFERENCE NUMBER: 392

WSC REFERENCE NUMBER: 07NBO01
SUBMITTER I.D.:

LOCATION: Latitude: 59~ 52' 20" Longitude: 111~ 35' 00"

Surface grab sample collected from upstream side of government dock.
Water is generally fast moving, resulting in turbid water.

STATION ESTABLISHED: 1960

PERIOD OF RECORD: 60-

STATION TYPE: Baseline, water quality objectives, interjurisdictional

Data base for main contaminants poorly developed. Future monitoring
is pursuant to bilateral negotiations (Alberta, NWT) through the
Mackenzie River Basin Agreement.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -		7.5		254	1.1
SPRING -					
SUMMER -		8.2		230	22.0
FALL -					

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1921-22, 1930,31, 1953-

SEDIMENT DATA: 1971-

ISSUES:

- Athabasca Tar Sands effluent discharge.
 - Pest cides from Peace River agriculture.
 - Proposed pulp and paper mill on Peace River.
-

REPORTS AVAILABLE FOR THIS SITE:

- Water Quality Data Report on the Slave River. Indian and Northern Affairs. 1985
 - Slave River Hydroelectric Project. Preliminary Identification of Environmental Issues. Department of Renewable Resources GNWT. 1982.
-

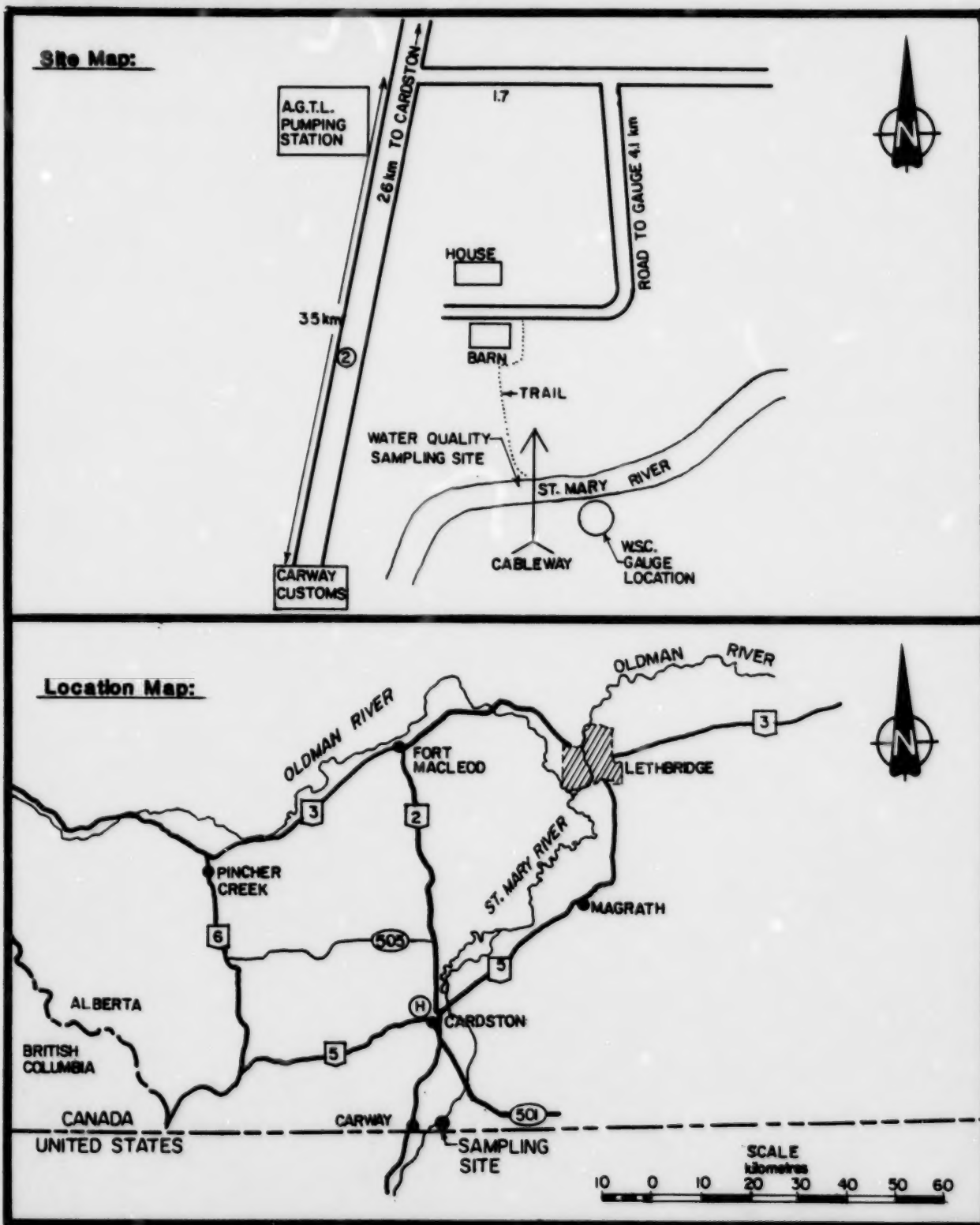
PREPARED OR REVISED BY: B. Olding

DATE: August 26, 1988

STATION PROFILE SITE and LOCATION MAPS

St. Mary River near International Boundary (formerly near Kimball)

NAQUADAT NUMBER: 00AL05AE0001



 STATION PROFILE

STATION NAME: St. Mary River Near International Boundary (Formerly
 near Kimball), ALBERTA

NAQUADAT NUMBER: 00AL05AE0001
 PROJECT REFERENCE NUMBER: 304

WSC REFERENCE NUMBER: 05AE027
 SUBMITTER I.D.:

LOCATION: Latitude: 49~ 00' 10" Longitude: 113~ 18' 50"

Sampling location is at Granite Ranch, approximately 27 km south of
 Cardston on Highway 2, then east at "Granite Ranch" sign, 1 km to
 ranch road marked by gateway with wagon wheels at base. South on
 this road to just east of stables to WSC cableway.

Sampled by wading near cableway. Rocks slippery.

STATION ESTABLISHED: September 1, 1960

PERIOD OF RECORD: 1960-

STATION TYPE: Interjurisdictional

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	8-14	7.8-8.5	<0.1-140	130 - 385	
SPRING -	8-14	7.8-8.5	<0.1-140	130 - 385	
SUMMER -	8-14	7.8-8.5	<0.1-140	130 - 385	
FALL -	8-14	7.8-8.5	<0.1-140	130 - 385	

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1902-

SEDIMENT DATA: 1977-78

ISSUES:

- Monitored for international water transfer.

REPORTS AVAILABLE FOR THIS SITE:

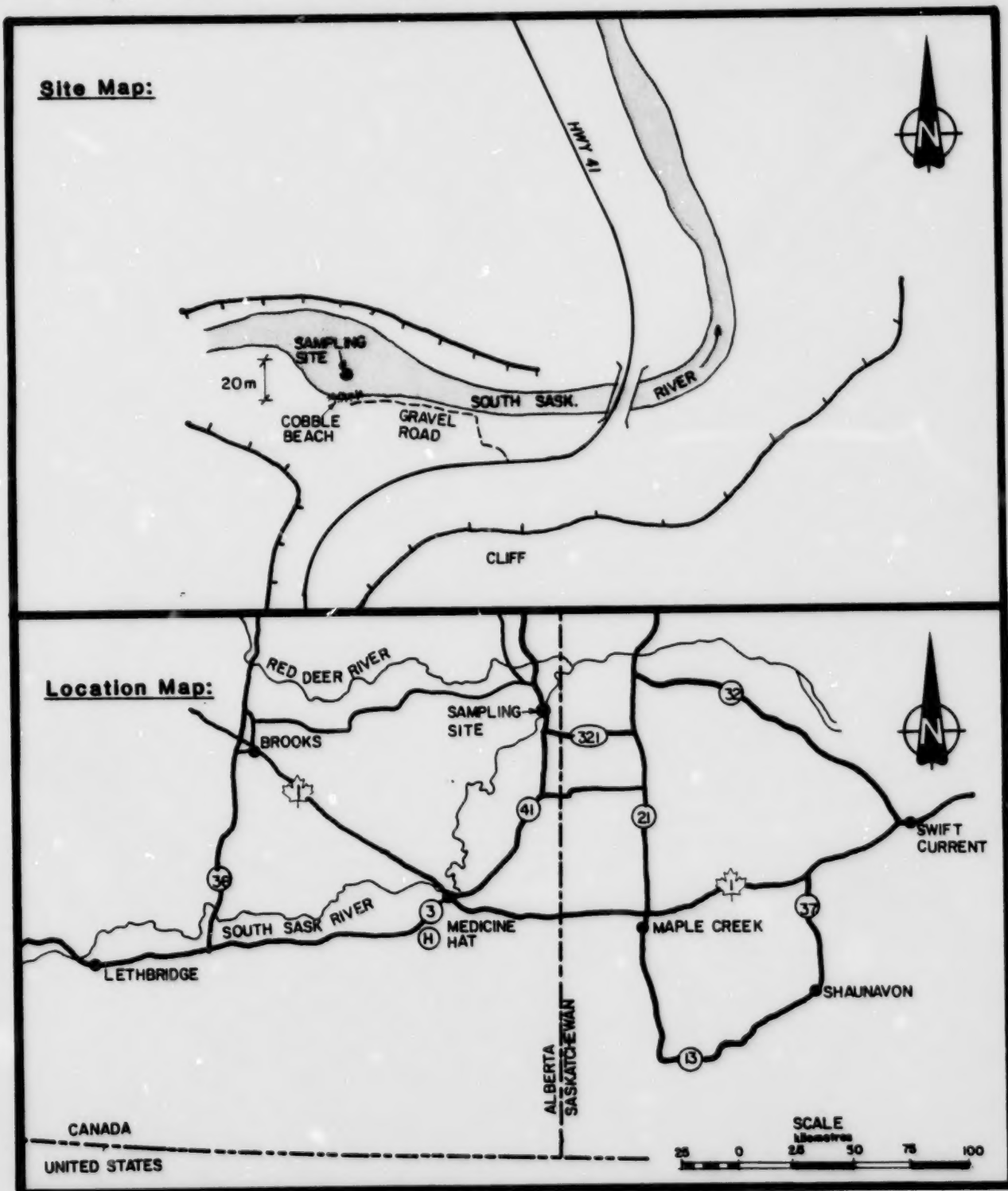
PREPARED OR REVISED BY: H. Block

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

South Saskatchewan River at Highway 41, Alberta

NAQUADAT NUMBER: 00AL05AK0001



 STATION PROFILE

STATION NAME: South Saskatchewan River at Highway 41, Alberta

NAQUADAT NUMBER: 00AL05AK0001
 PROJECT REFERENCE NUMBER: 315-88

WSC REFERENCE NUMBER: 05AK001
 SUBMITTER I.D.: 0462 (1972-)

LOCATION: Latitude: 50~ 44' 15" Longitude: 110~ 05' 44"

Sampling upstream from bridge on secondary road used for campers and picnickers.

Sampled 20 meters from south shore near cobble beach. Sampling carried out at this site during ice-covered and open water periods. During ice break-up sampling from bridge is advised.

STATION ESTABLISHED: Jan 28, 1970

PERIOD OF RECORD: Jan 1970 - Ongoing

STATION TYPE: Network, heavy metal & herbicide, PPWB.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	12.0	7.8	<10	500	0
SPRING -	12.0	8.1	30	400	10
SUMMER -	9.0	8.3	100	300	20
FALL -	14.0	8.1	<20	400	5

Algae growth expected during August
 Oil sheen frequently seen in May

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1966-

SEDIMENT DATA: 1966-

ISSUES:

REPORTS AVAILABLE FOR THIS SITE:

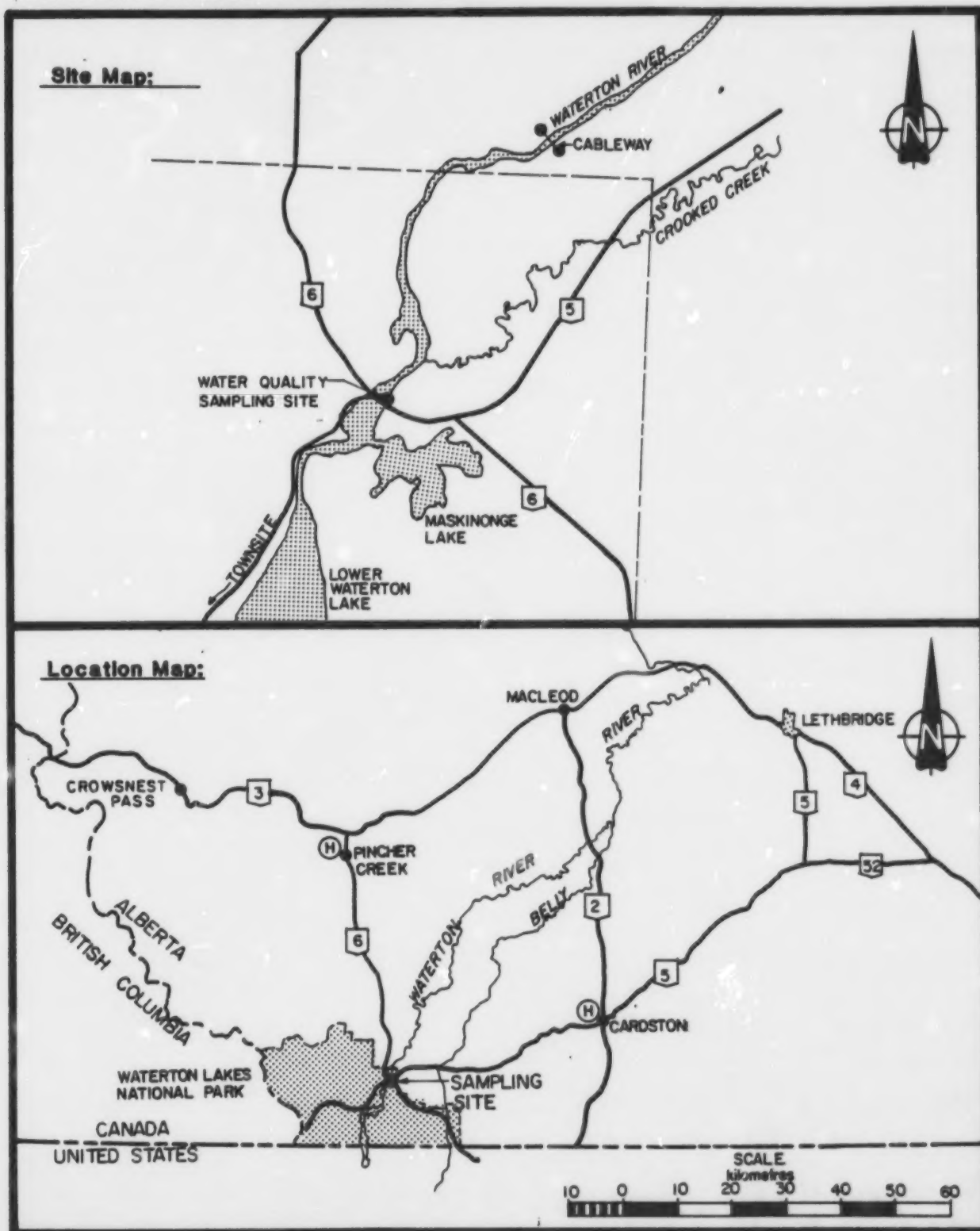
PREPARED OR REVISED BY: P.W. NEIL

DATE: July 7, 1988

STATION PROFILE SITE and LOCATION MAPS

Waterton River at Hwy 6 near Waterton Lakes National Park

NAQUADAT NUMBER: 00AL05AD0005



 STATION PROFILE

STATION NAME: Waterton River at Highway 6 Bridge near Waterton
 Lakes National Park, ALBERTA

NAQUADAT NUMBER: 00AL05AD0005
 PROJECT REFERENCE NUMBER: 304

WSC REFERENCE NUMBER: 05AD003
 SUBMITTER I.D.:

 LOCATION: Latitude: 49° 06' 50" Longitude: 113° 50' 20"

Sampling location is at Highway 6 Bridge just east of Waterton Lakes
 National Park gate.

Sampled from bridge near WSC wire-weight gauge or by wading from
 right bank. Abundant algae on bottom rocks in summer. Slippery
 bottom. Usually open water conditions year round. Extremely windy
 location, it is sometimes helpful to park on bridge using vehicle as
 a windbreak.

 STATION ESTABLISHED: August 26, 1964

PERIOD OF RECORD: 1964-

STATION TYPE: Eastern slopes, network, National Parks,
 Interjurisdictional.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	8.5-13	7.8-8.4	0.2-5.5	130 - 200	
SPRING -	8.5-13	7.8-8.4	0.2-5.5	130 - 200	
SUMMER -	8.5-13	7.8-8.4	0.2-5.5	130 - 200	
FALL -	8.5-13	7.8-8.4	0.2-5.5	130 - 200	

 WSC HYDROMETRIC STATION PERIOD OF RECORD: 1908-33, 1948-

SEDIMENT DATA: Not available

 ISSUES:

- Monitored for international water.
- National Parks boundary station.

 REPORTS AVAILABLE FOR THIS SITE:

 PREPARED OR REVISED BY: H. Block

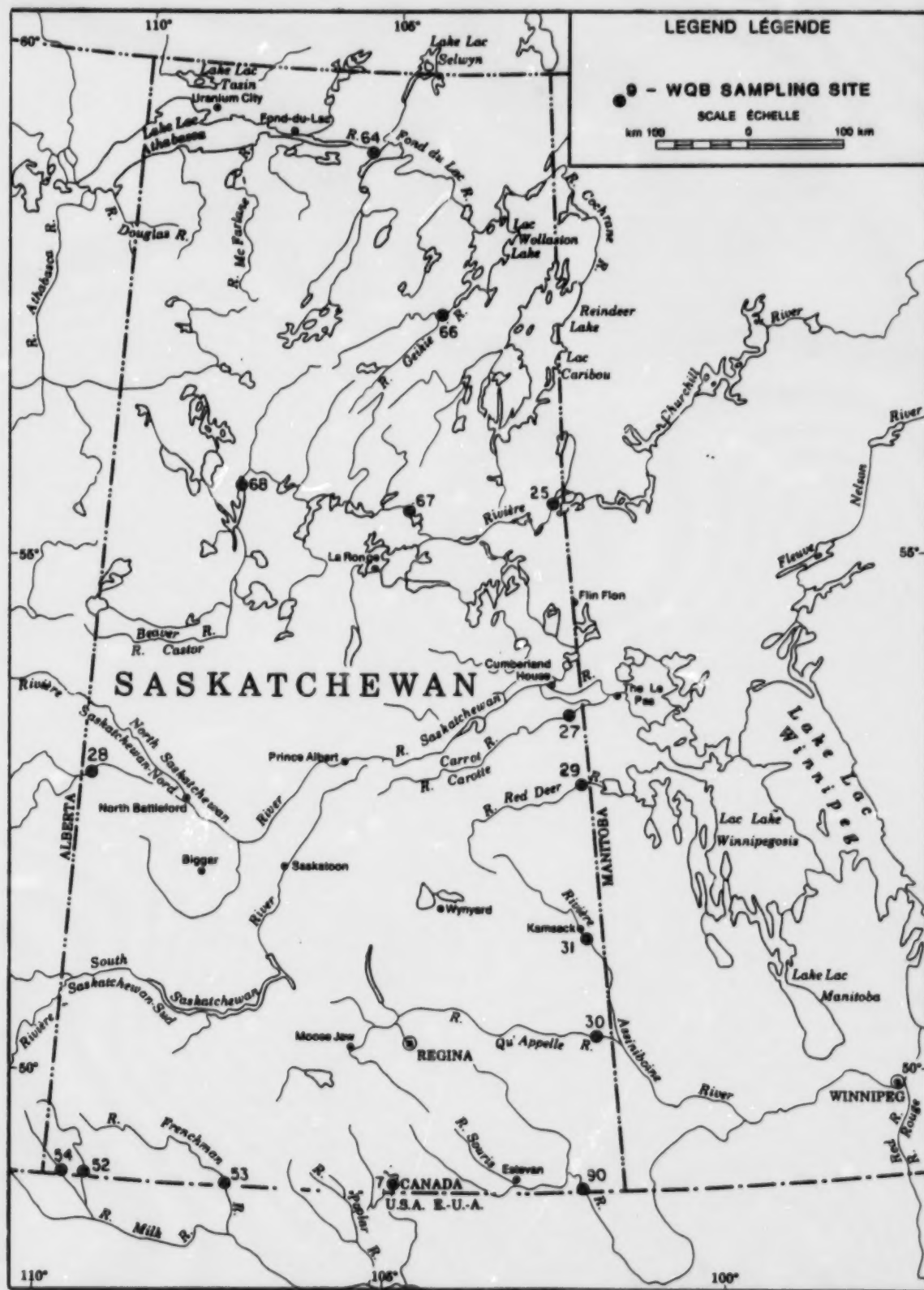
DATE: March 31, 1987

SASKATCHEWAN
WATER QUALITY SITES

VQB - W&NR

Environment Canada
Inland Waters/Lands
Motherwell Building
1901 Victoria Avenue
Regina, Saskatchewan
S4P 3R4
(306) 780-5323





SASKATCHEWAN WATER QUALITY MONITORING

PROJECT 312 -- Canada-Saskatchewan Water Quality Monitoring Agreement

- 7. East Poplar River at International Boundary
- 52. Battle Creek near International Boundary
- 53. Frenchman River at 49th Parallel
- 54. Lodge Creek near Willow Creek at Highway 21
- 90. Souris River 16km South of Glen Ewen

Monthly sampling for these international sites is carried out for a wide variety of parameters. Unusual values may be followed up with re-surveys. Governments concerned are notified of potential and real problems.

- 64. Fond du Lac River at Outlet of Black Lake
- 66. Geikie River Below Junction of Wheeler River
- 67. Churchill River at Otter Rapids
- 68. Churchill River at Patuanak

These northern Saskatchewan monitoring locations are sampled on a quarterly cost-shared basis with the Province of Saskatchewan. These sites are accessible by air only.

PROJECT 315 -- Prairie Provinces Water Board Monitoring (ALBERTA-SASKATCHEWAN and MANITOBA-SASKATCHEWAN boundary)

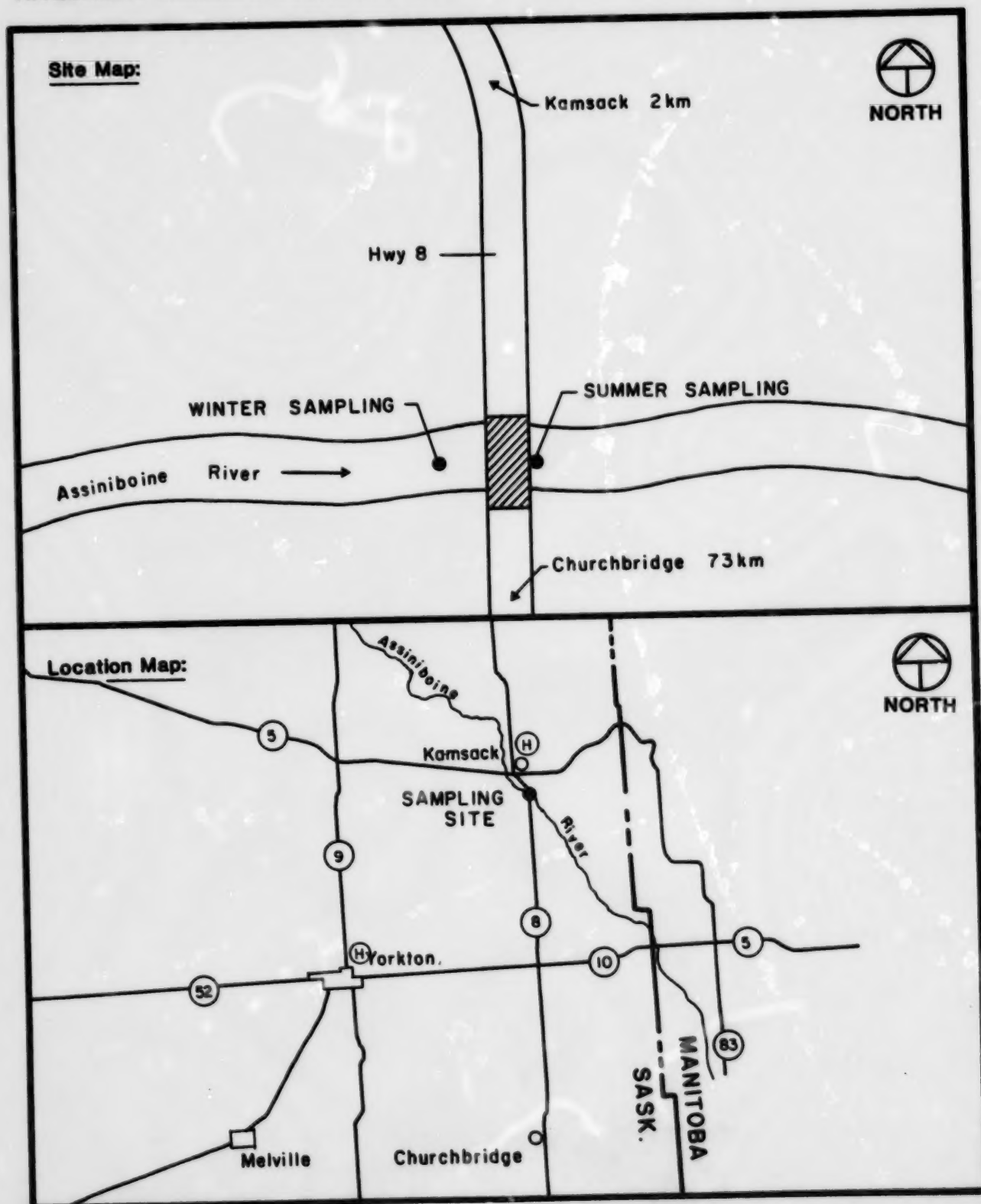
- 25. Churchill River below Wasawakasik Lake
- 27. Carrot River at Turnberry
- 28. Battle River near Unwin
- 29. Red Deer River near Erwood
- 30. Qu'Appelle River 3.2km South of Welby
- 31. Assiniboine R. at Hwy #8 below Kamsack
- 32. Saskatchewan River above Carrot River
- 91. North Saskatchewan River at Highway 17

Three other PPWB sites along the Alberta-Saskatchewan border are described in the Alberta section of this book, and one PPWB site along the Saskatchewan-Manitoba border is described in the Manitoba section. For these interprovincial rivers the Water Quality Branch provides data, interpretation, and advice to the Prairie Provinces Water Board (PPWB). Stations are sampled monthly. These stations represent river systems in both the Canadian Shield and Plains physiographic regions of the Western and Northern Region.

STATION PROFILE SITE and LOCATION MAPS

Assiniboine River below Kamsack

NAQUADAT NUMBER: 00SA05MD0002



 STATION PROFILE

STATION NAME: Assiniboine River below Kamsack, SASKATCHEWAN

NAQUADAT NUMBER: 00SA05MD0002
 PROJECT REFERENCE NUMBER: 315

WSC REFERENCE NUMBER: 05MD002
 SUBMITTER I.D.: 0462

LOCATION: Latitude: 51~ 31' 59" Longitude: 101~ 53' 20"

Sampling location is at bridge on Hwy 8, approximately 2 km south of Kamsack, Saskatchewan.

During open water, samples are collected on downstream side of bridge. During winter, samples are collected approximately 20 m upstream (in deep area).

STATION ESTABLISHED: January, 1957

PERIOD OF RECORD: 1957

STATION TYPE: Monthly, major ions, nutrients, heavy metal biocides.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	3-10	6.5-7.8	5-10	300-1600	0-3
SPRING -	3-14	6.5-8.5	5-30	300-1200	0-10
SUMMER -	5-14	6.5-8.5	5-130	300-1600	10-25
FALL -	3-14	6.5-8.5	5-25	500-1600	0-18

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1944 open water
 1957 -

SEDIMENT DATA: 1969-77, 1978-79

ISSUES:

- Agriculture and municipal issues relating to river.

REPORTS AVAILABLE FOR THIS SITE:

- PPWB Report #50

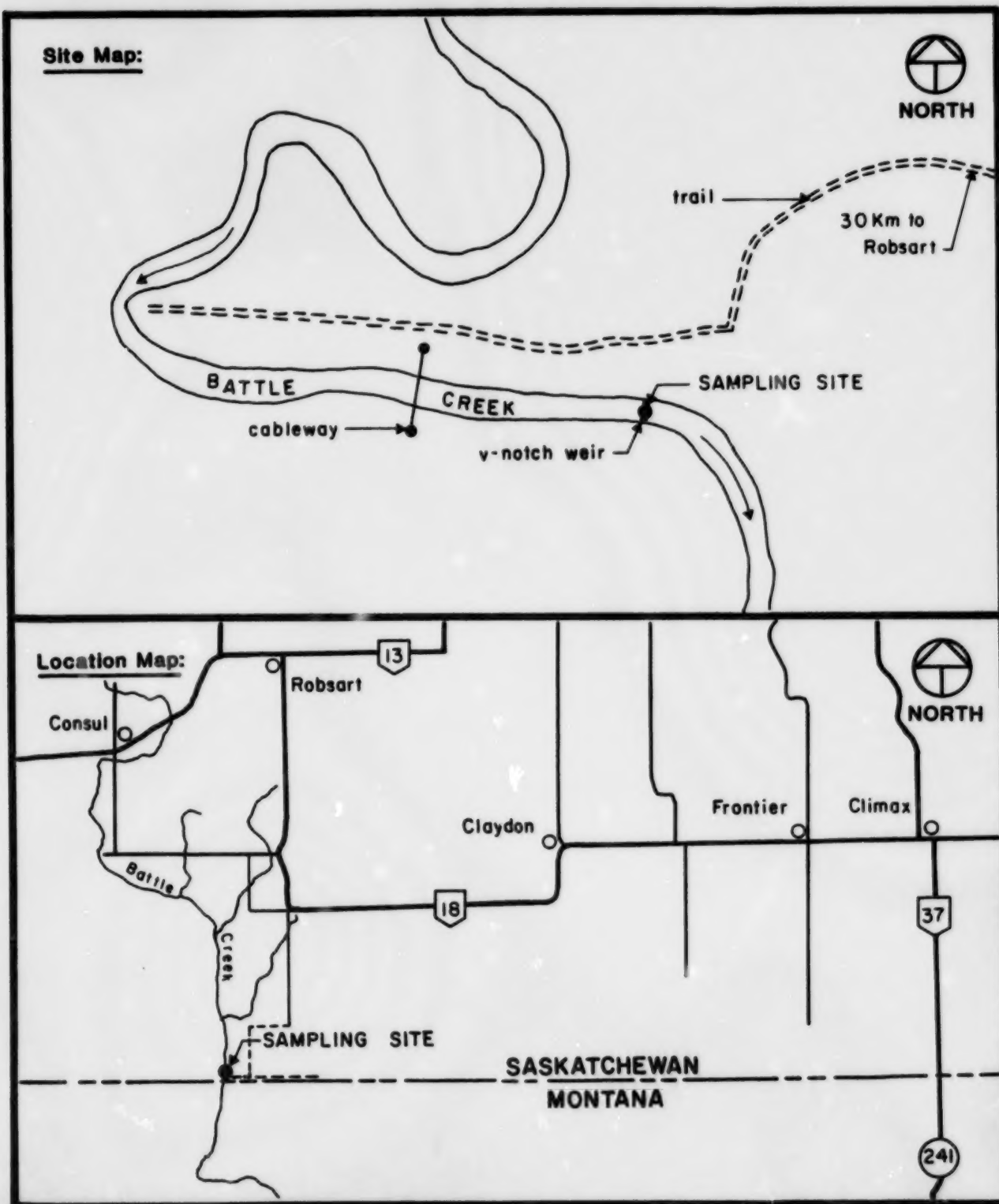
PREPARED OR REVISED BY: Bob Woychuk

DATE: October 12, 1988

STATION PROFILE SITE and LOCATION MAPS

Battle Creek near International Boundary, SASKATCHEWAN

NAQUADAT NUMBER: 00SA11AB0005



 STATION PROFILE

STATION NAME: Battle Creek near International Boundary, Sask.

NAQUADAT NUMBER: 00SA11AB0005
 PROJECT REFERENCE NUMBER: 312-88

WSC REFERENCE NUMBER: 11AB027
 SUBMITTER I.D.: 0001 (1974-)

LOCATION: Latitude: 49° 00' 24" Longitude: 109° 43' 30"

Sampling location at the V-notch weir at the international boundary. Samples are collected by WSC field technicians monthly between the March 1 to October 31. Zero discharge usually occurs during mid-summer months. Access to the site can be difficult during wet soil conditions; the use of 4-wheel drive vehicles is recommended.

STATION ESTABLISHED: June 5, 1979

PERIOD OF RECORD: June 5, 1979 - ONGOING

STATION TYPE: Network, field physicals, nutrients, bacteria,
 major ions, metals & herbicide,

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -					
SPRING -					
SUMMER -	8-12	8-9.6		350-750	17-22
FALL -					

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1951

SEDIMENT DATA: Not Available.

ISSUES:

- The purpose of this station is to monitor water quality crossing the international boundary to meet the commitments under the Boundary Waters treaty. Discharge at the station is regulated by upstream irrigation releases.

REPORTS AVAILABLE FOR THIS SITE: SOME (all related to discharge)

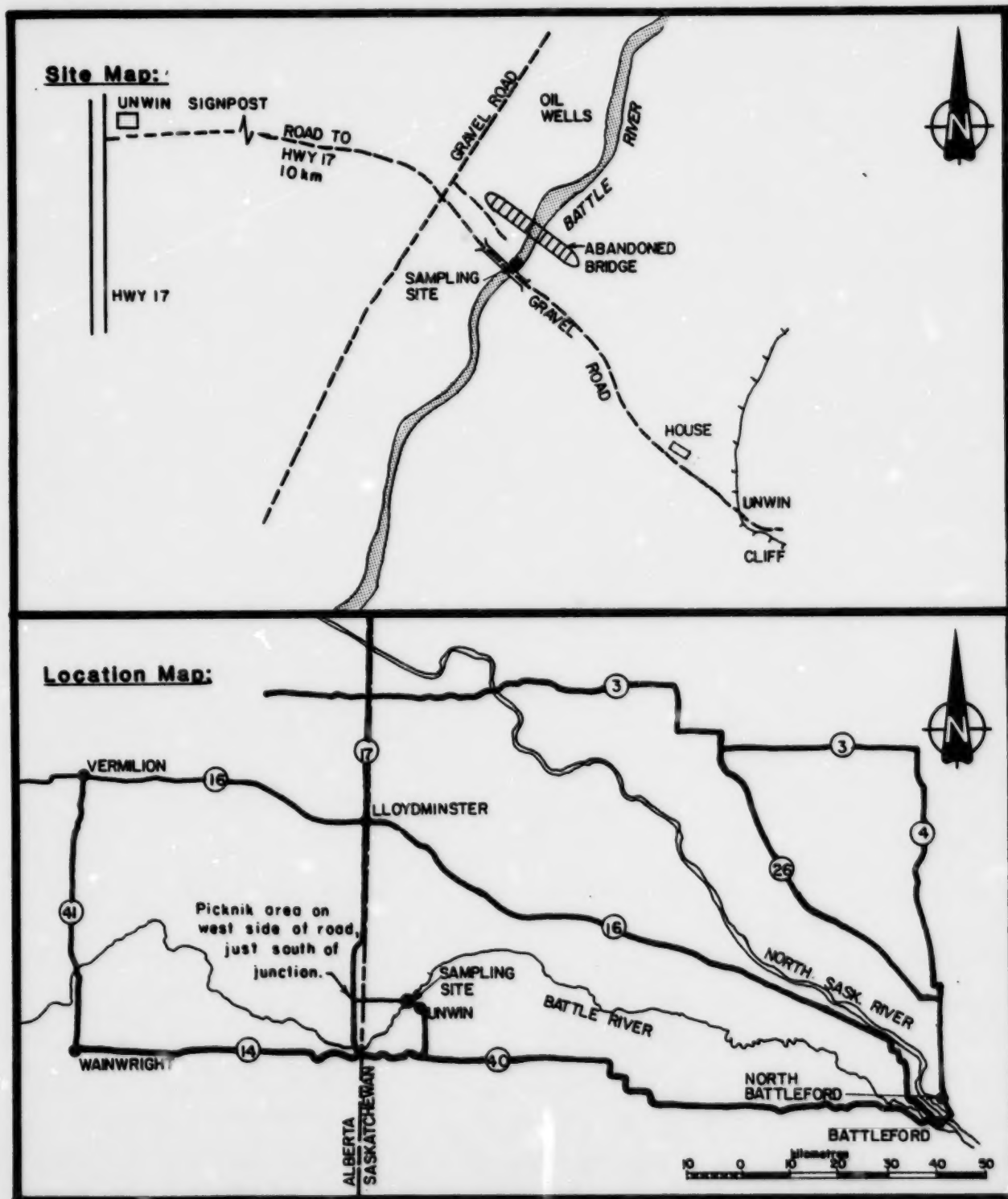
PREPARED OR REVISED BY: P. W. NEIL

DATE: July 20, 1988

STATION PROFILE SITE and LOCATION MAPS

Battle River near Unwin, Sask.

NAQUADAT NUMBER: 00SA05FE0001



 STATION PROFILE

STATION NAME: Battle River near Unwin, Saskatchewan

NAQUADAT NUMBER: 00SA05FE0001
 PROJECT REFERENCE NUMBER: 315-88

WSC REFERENCE NUMBER: 05FE001
 SUBMITTER I.D.: 462 (1972-)

LOCATION: Latitude: 52° 56' 25" Longitude: 109° 52' 23"

Sampling location is at bridge on secondary road connecting Hwy 17 to the town of Unwin.

Sampled at centre stream from north side of bridge during both ice covered and open water periods. Caution: bridge is a busy traffic area. Flying rocks could cause injury.

STATION ESTABLISHED: SEPTEMBER 1966

PERIOD OF RECORD: SEPT 1966 - ONGOING

STATION TYPE: Network, heavy metal & herbicide, PPWB.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	1.0	7.5	1.0	1200	0
SPRING -	8.0	8.0	65.0	500	10
SUMMER -	9.0	8.5	50.0	700	20
FALL -	13.0	7.8	5.0	1000	5

Algae growth expected during August
 Oil sheen frequently seen in May

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1944-

SEDIMENT DATA: Not available

ISSUES:

- Major interprovincial river monitored for PPWB

REPORTS AVAILABLE FOR THIS SITE:

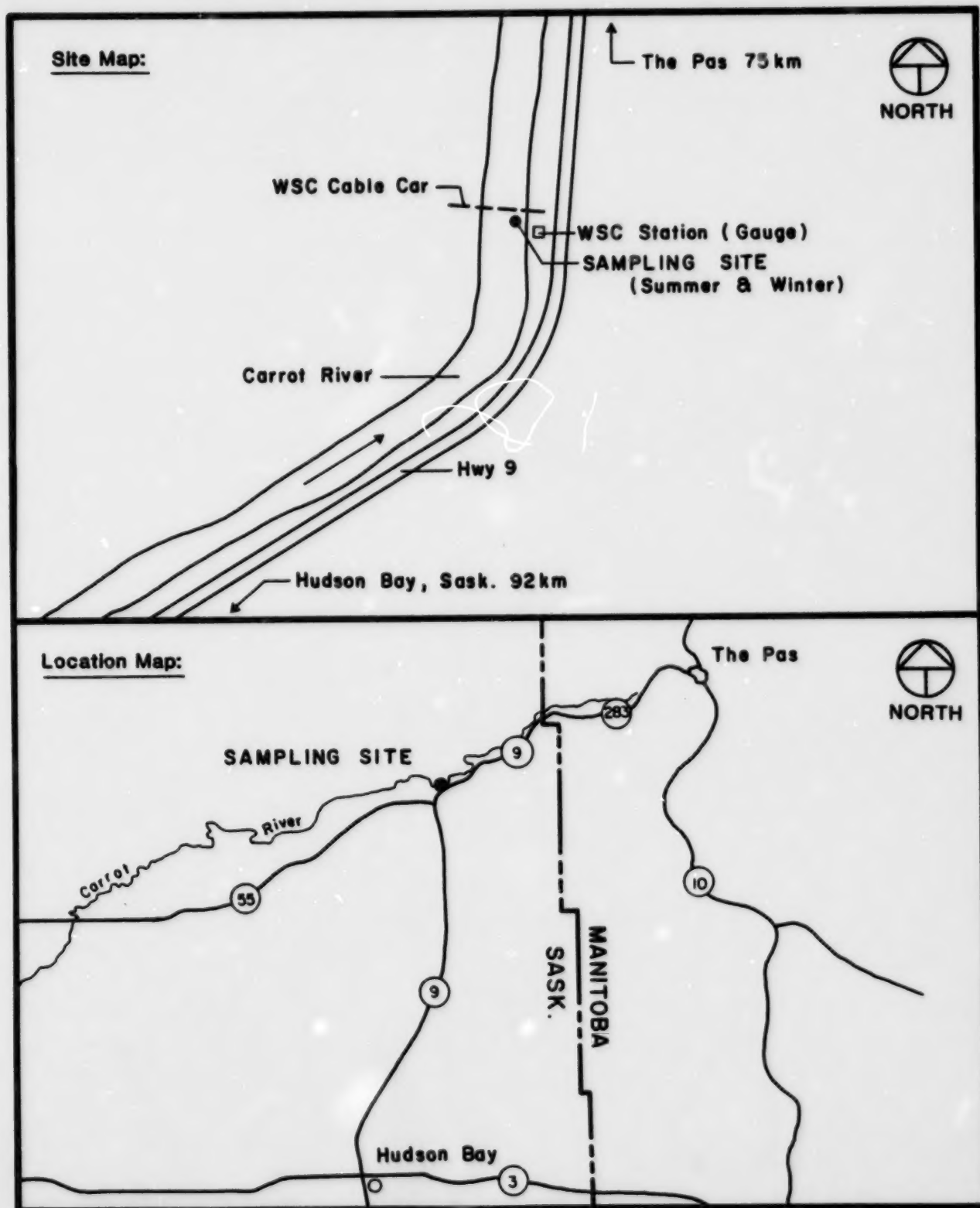
PREPARED OR REVISED BY: P.W. NEIL

DATE: July 6, 1988

STATION PROFILE SITE and LOCATION MAPS

Carrot River near Turnberry

NAQUADAT NUMBER: 00SA05KH0002



 STATION PROFILE

STATION NAME: Carrot River near Turnberry, SASKATCHEWAN

NAQUADAT NUMBER: 00SA05KH0002
 PROJECT REFERENCE NUMBER: 315

WSC REFERENCE NUMBER: 05KH002
 SUBMITTER I.D.: 0462

LOCATION: Latitude: 53~ 36' 00" Longitude: 102~ 07' 00"

Sampling location is west of WSC stations (winter and summer).

Samples are collected by wading, casting from bank, or from cable car.

STATION ESTABLISHED: May, 1974

PERIOD OF RECORD: 1974 -

STATION TYPE: Monthly, major ions, nutrients, heavy metal, biocides.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	0-5	6.5-7.5	3-35	600-4000	0-3
SPRING -	3-10	7.0-9.0	5-60	300-1000	0-10
SUMMER -	6-14	7.0-8.5	5-250	500-1600	10-25
FALL -	6-14	7.0-8.5	5-60	500-1600	5-15

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1966 -

SEDIMENT DATA: Not available

ISSUES:

- Low winter dissolved oxygen.

REPORTS AVAILABLE FOR THIS SITE:

- PPWB Report #50, Interprovincial river water quality data at
 Manitoba-Saskatchewan border, January 1960 to April 1974.

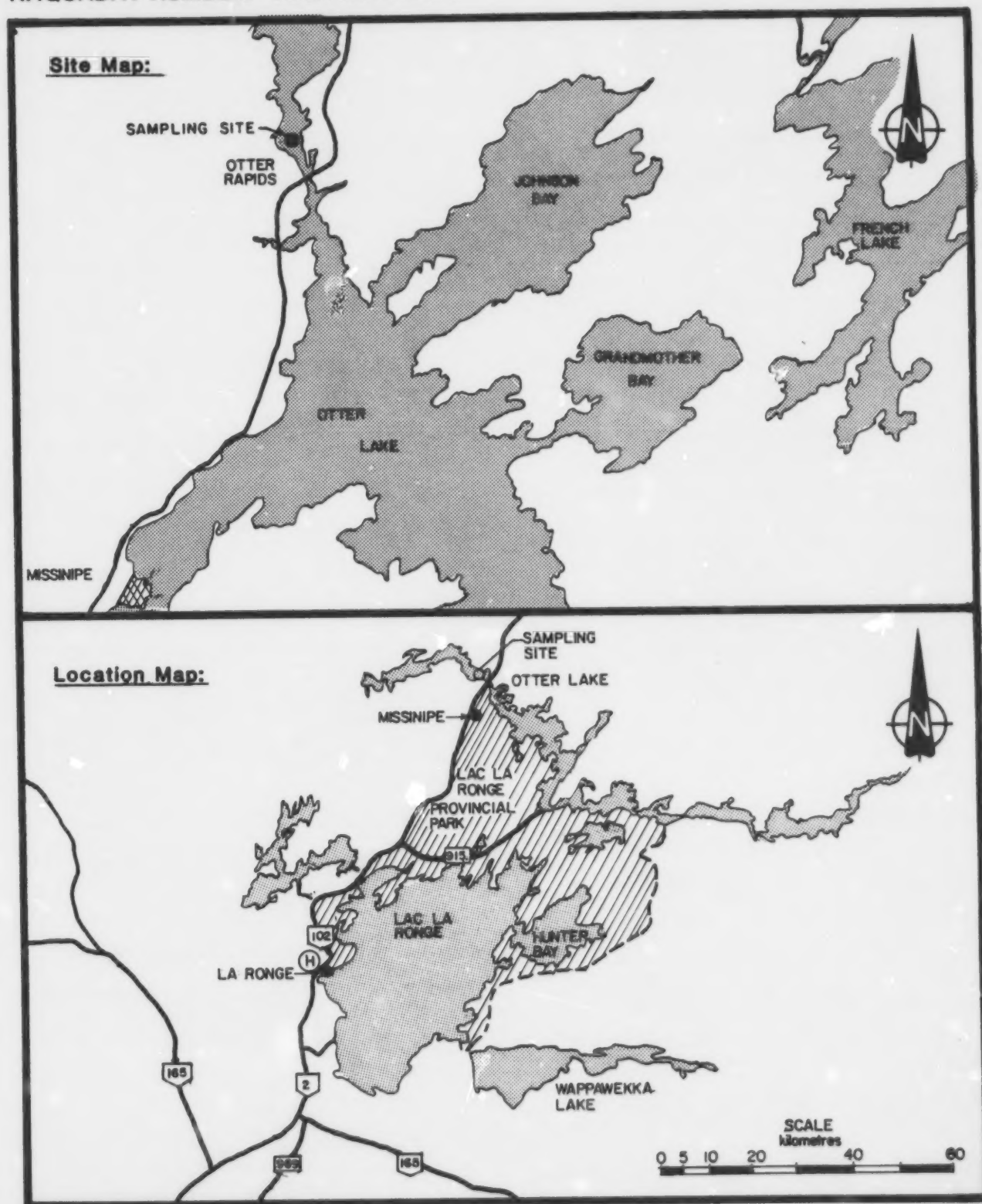
PREPARED OR REVISED BY: Bob Woychuk

DATE: October 12, 1988

STATION PROFILE SITE and LOCATION MAPS

Churchill River at Otter Rapids, Sask.

NAQUADAT NUMBER: 00SA06CD0001



STATION PROFILE

STATION NAME: Churchill River at Otter Rapids, Sask.

NAQUADAT NUMBER: 00SA06CD0001
PROJECT REFERENCE NUMBER: 312-88

WSC REFERENCE NUMBER: 06CD002
SUBMITTER I.D.: 0003

LOCATION: Latitude: 55~ 38' 25" Longitude: 104~ 44' 5"

Samples taken from pontoon of fixed-wing aircraft.

Care must be taken during slushy conditions as pontoons could stick.

STATION ESTABLISHED: JUNE 1985

PERIOD OF RECORD: JUNE 1985- ONGOING

STATION TYPE: Network, trace element, metals, radioactivity

EXPECTED FIELD OBSERVATIONS:

	DO	pH	SPECIFIC COND.	TEMP.
WINTER -	11.2	22.7	171	0.1
SPRING -	10.0	7.8	140	15
SUMMER -	17.0	8.0	130	17
FALL -	8.0	7.8	127	10

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1963-

SEDIMENT DATA: Not available.

ISSUES:

REPORTS AVAILABLE FOR THIS SITE:

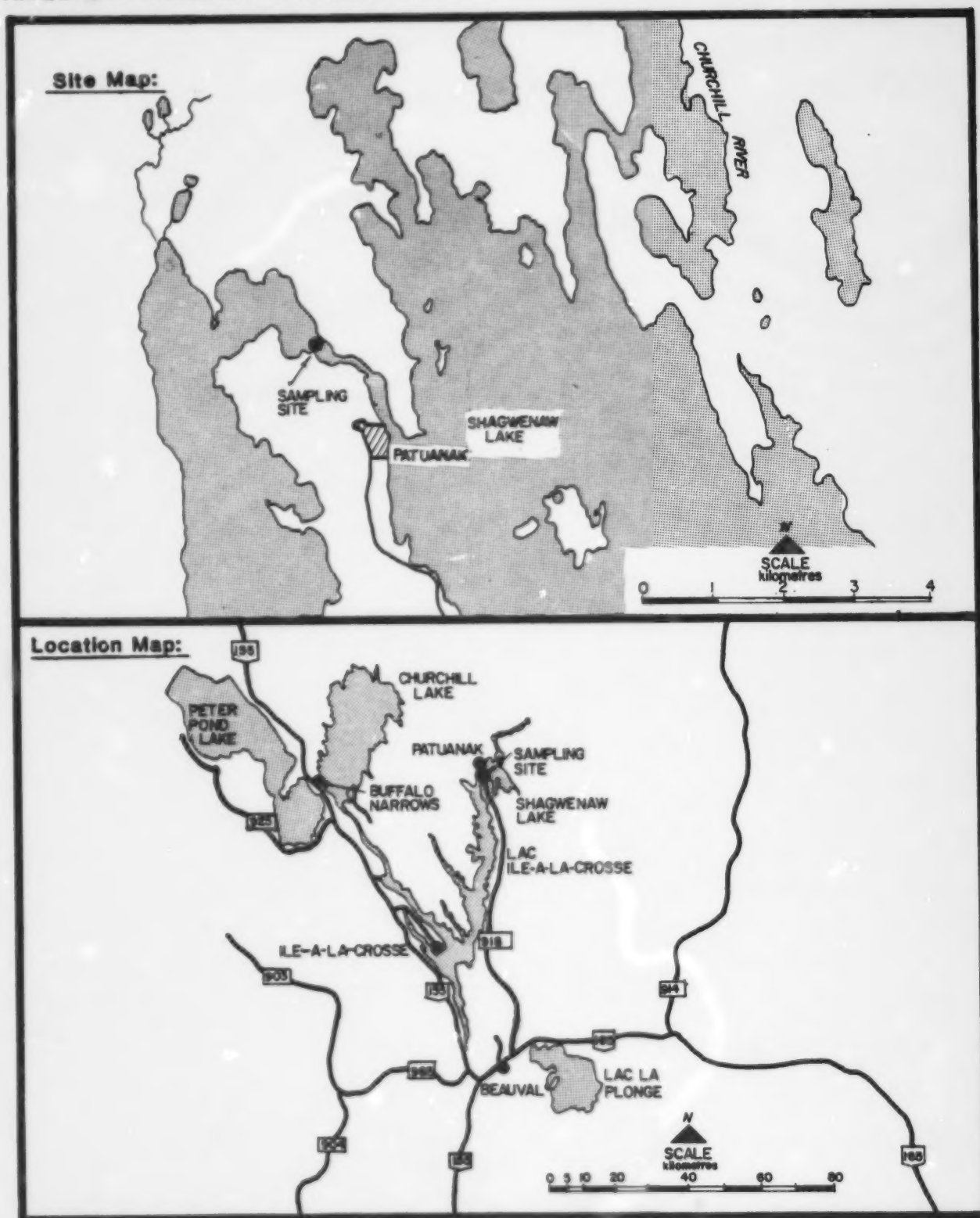
PREPARED OR REVISED BY: P.W. NEIL

DATE: JULY 6, 1988

STATION PROFILE SITE and LOCATION MAPS

Churchill River at Patuanak, Sask.

NAQUADAT NUMBER: 00SA06BB0004



 STATION PROFILE

STATION NAME: Churchill River at Patuanak, Sask.

NAQUADAT NUMBER: 00SA06BB0004
 PROJECT REFERENCE NUMBER: 312-88

WSC REFERENCE NUMBER: 06BB003
 SUBMITTER I.D.: 0003

LOCATION: Latitude: 55° 55' 30" Longitude: 107° 43' 39"

Samples taken from pontoon of fixed-wing aircraft.

Care must be taken during slushy conditions as pontoons could stick.

STATION ESTABLISHED: JUNE 1985

PERIOD OF RECORD: JUNE 1985 - ONGOING

STATION TYPE: Network, trace element, metals, radioactivity

EXPECTED FIELD OBSERVATIONS:

	DO	pH	SPECIFIC COND.	TEMP.
WINTER -	12.0	8.1	260	0.2
SPRING -	12.0	7.2	230	8.0
SUMMER -	11.0	8.2	230	17.0
FALL -	11.0	8.2	230	8.0

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1972-

SEDIMENT DATA: Not available.

ISSUES:

REPORTS AVAILABLE FOR THIS SITE:

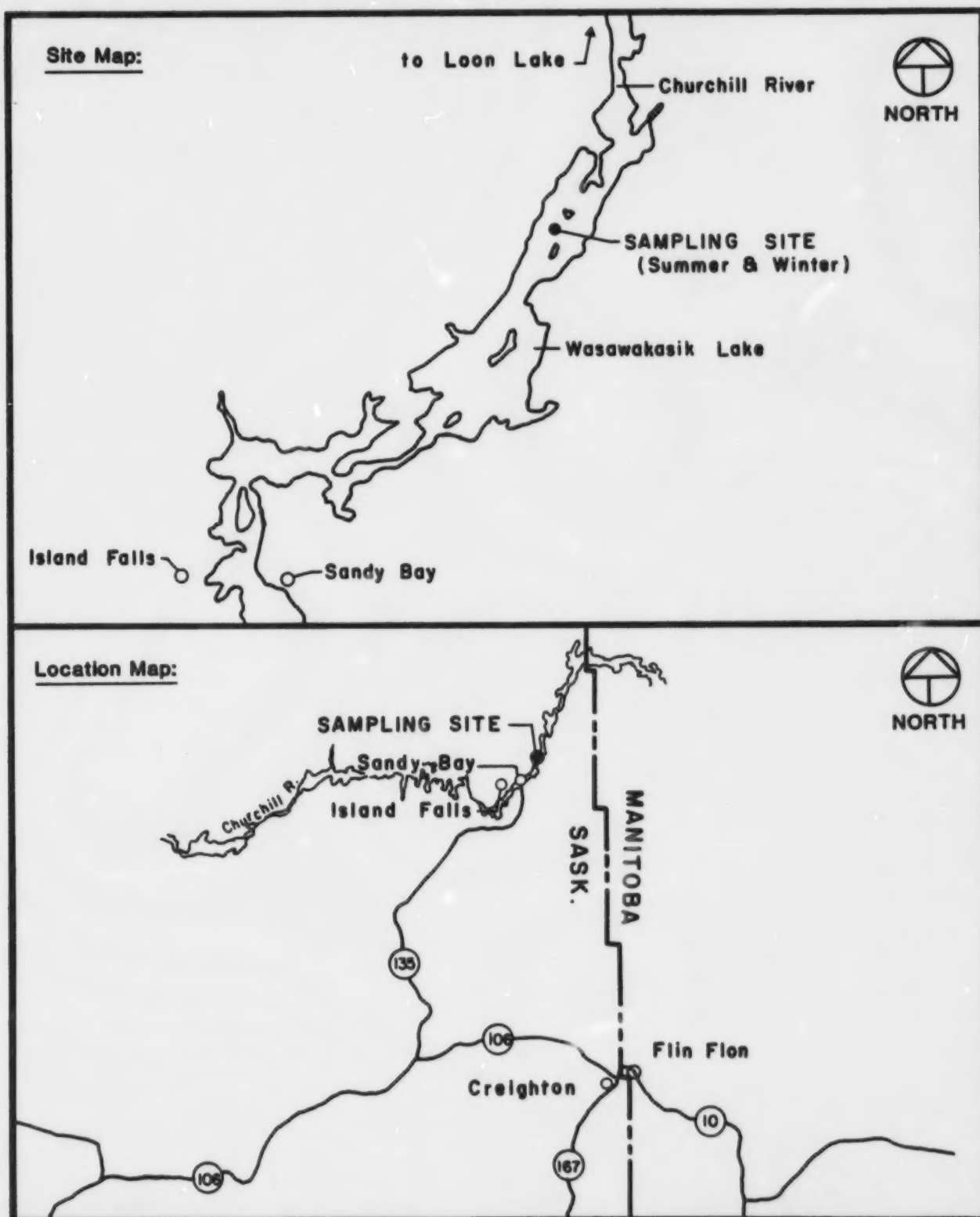
PREPARED OR REVISED BY: P.W. NEIL

DATE: JULY 6, 1988

STATION PROFILE SITE and LOCATION MAPS

Churchill River at Outlet of Wasawakasik Lake

NAQUADAT NUMBER: 00SA06EA0003



STATION PROFILE

STATION NAME: Churchill River at Outlet of Wasawakasik Lake, SASK.

NAQUADAT NUMBER: 00SA06EA0003
PROJECT REFERENCE NUMBER: 315

WSC REFERENCE NUMBER: 06EA003
SUBMITTER I.D.: 0462

LOCATION: Latitude: 55° 36' 29" Longitude: 102° 11' 44"

Sampling location is near the outlet off the main channel. This off channel site makes it safe for winter sampling.
Samples are collected from plane float (summer), on ice in winter.

STATION ESTABLISHED: December, 1960

PERIOD OF RECORD: 1960 -

STATION TYPE: Monthly, major ions, nutrients, heavy metal, biocides.
Continuous MI,N,HM,B Data since 1974.

EXPECTED FIELD OBSERVATIONS:

	DO	PH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	8-14	7-8	1-5	50-100	0-1
SPRING -	8-14	7-8	2-8	50-100	0-10
SUMMER -	6-12	7-8	3-10	50-200	10-20
FALL -	8-14	7-8	2-8	50-150	0-15

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1928 -

SEDIMENT DATA: Not available

ISSUES:

REPORTS AVAILABLE FOR THIS SITE:

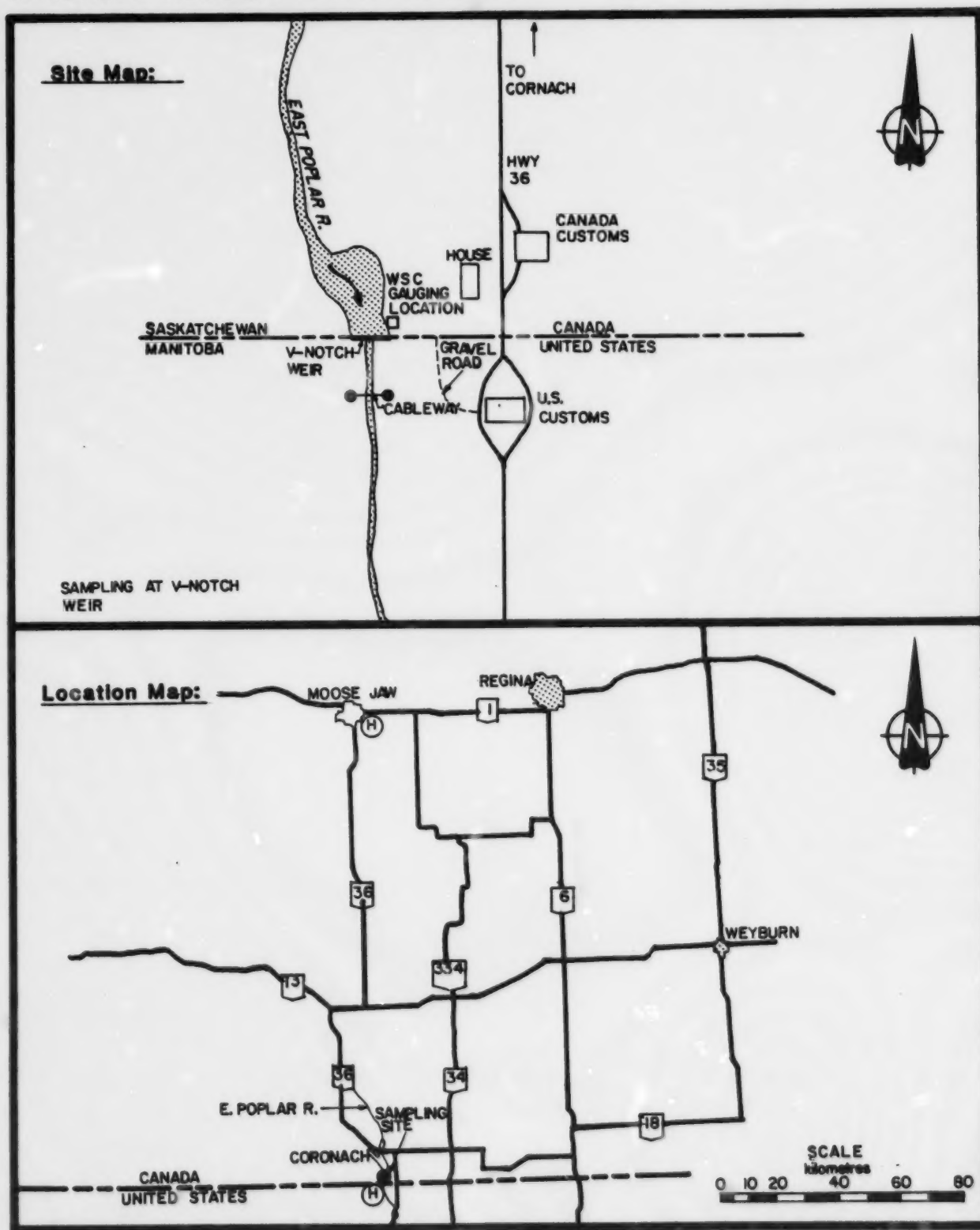
PREPARED OR REVISED BY: Bob Woychuk

DATE: October 12, 1988

STATION PROFILE SITE and LOCATION MAPS

East Poplar River at International Boundary, Saskatchewan

NAQUADAT NUMBER: 00SA11AE0008



 STATION PROFILE

STATION NAME: East Poplar River at International Boundary, Saskatchewan

NAQUADAT NUMBER: 00SA11AE0008
 PROJECT REFERENCE NUMBER: 312-88

WSC REFERENCE NUMBER: 11AE003
 SUBMITTER I.D.: 0003 (1972-)

LOCATION: Latitude: 49~ 00' 00" Longitude: 105~ 24' 36"

Sampling location at the V-notch weir at the international boundary.
 As the weir is kept unfrozen by customs officials, sampling is
 conducted by hand year-round without the need of an ice auger.

The weir may become icy during the winter season.

STATION ESTABLISHED: JULY 1975

PERIOD OF RECORD: JULY 1975 - ONGOING

STATION TYPE: Network, radionuclides, heavy metal & herbicide,

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	4.0	7.3	1.5	1500	0
SPRING -	12.0	8.6	>6.0	1100	4.0
SUMMER -	11.0	8.0	6.0	800	23.0
FALL -	10.0	8.0	4.0	1350	4.0

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1931-

SEDIMENT DATA: Not Available.

ISSUES:

REPORTS AVAILABLE FOR THIS SITE:

PREPARED OR REVISED BY: P. W. NEIL

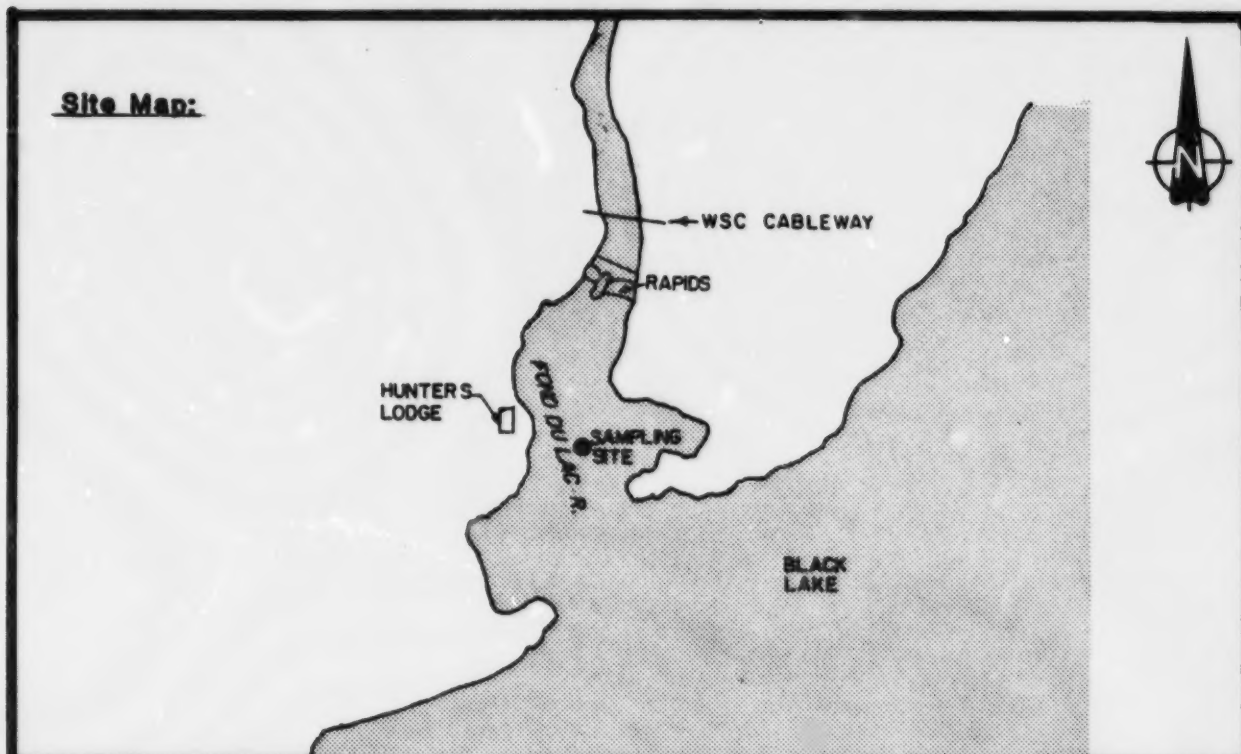
DATE: July 6, 1988

STATION PROFILE SITE and LOCATION MAPS

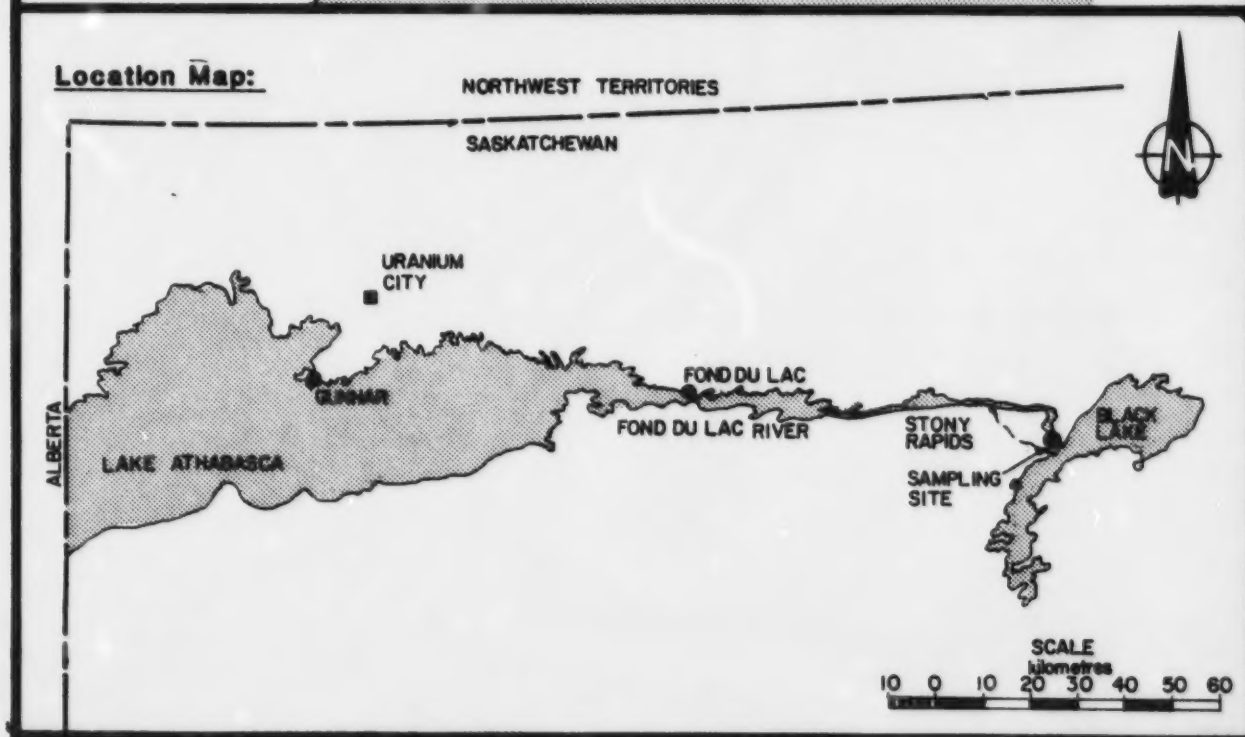
Fond du Lac River at outlet of Black Lake, Sask.

NAQUADAT NUMBER: 00SA07LC0001

Site Map:



Location Map:



 STATION PROFILE

STATION NAME: Fond du Lac River at outlet of Black Lake, Sask.

NAQUADAT NUMBER: 00SA07LC0001
 PROJECT REFERENCE NUMBER: 312-88

WSC REFERENCE NUMBER: 07LE002
 SUBMITTER I.D.: 0003

LOCATION: Latitude: 59~ 09' 00" Longitude: 105~ 32' 30"

Sampling location is at channel centre directly in front of hunter's lodge.

Samples taken from pontoon of fixed-wing aircraft.

Care must be taken during slushy conditions as pontoons could stick.

STATION ESTABLISHED: JUNE 1985

PERIOD OF RECORD: JUNE 1985 - ONGOING

STATION TYPE: Network, trace element, metals, radioactivity

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	12.2	6.4		48.8	0.0
SPRING -					
SUMMER -	13.7	6.8		47.0	15.0
FALL -					

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1963-

ISSUES:

REPORTS AVAILABLE FOR THIS SITE:

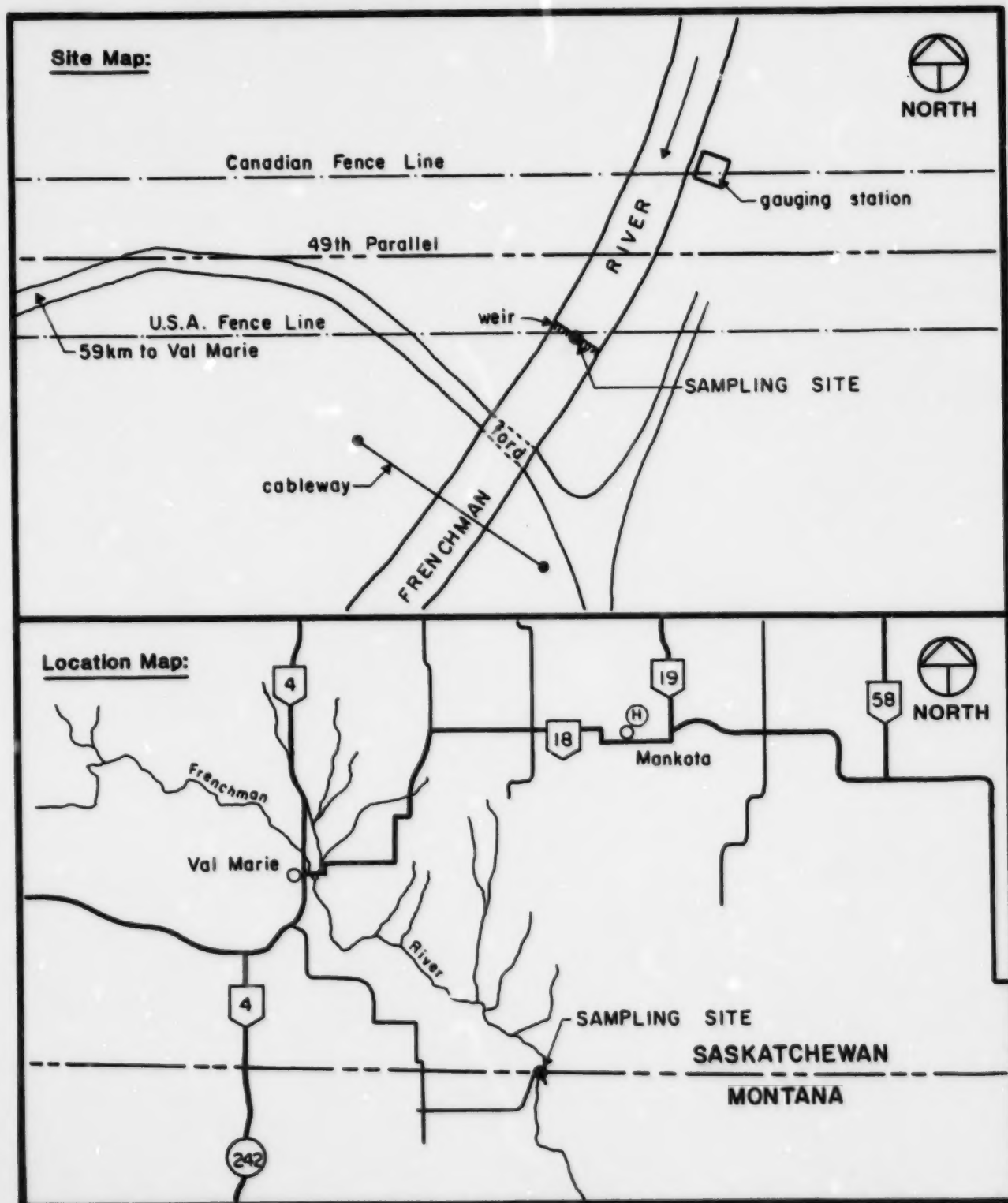
PREPARED OR REVISED BY: P.W. NEIL

DATE: July 6, 1988

STATION PROFILE SITE and LOCATION MAPS

Frenchman River at 49th Parallel, SASKATCHEWAN

NAQUADAT NUMBER: 00SA11AC0002



STATION PROFILE

STATION NAME: Frenchman River at 49th Parallel, Saskatchewan

NAQUADAT NUMBER: 00SA11AC0002
PROJECT REFERENCE NUMBER: 312-88

WSC REFERENCE NUMBER:
SUBMITTER I.D.: 0001 (1974-)

LOCATION: Latitude: 49~ 00' 00" Longitude: 107~ 18' 10"

Sampling location at the V-notch weir at the international boundary.
Samples are collected by WSC field technicians monthly between the
March 1 to October 31.

STATION ESTABLISHED: MAY 30, 1979

PERIOD OF RECORD: MAY 30, 1979 - ONGOING

STATION TYPE: Network, field physicals, nutrients, bacteria,
major ions, metals & herbicide,

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -					
SPRING -					
SUMMER -	11-8	7-8.5		500-800	18-22
FALL -					

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1916

SEDIMENT DATA: Not Available.

ISSUES: The purpose of this station is to monitor water quality
crossing the international boundary to meet the commitments under
the Boundary Waters treaty. Discharge at the station is regulated by
upstream reservoirs.

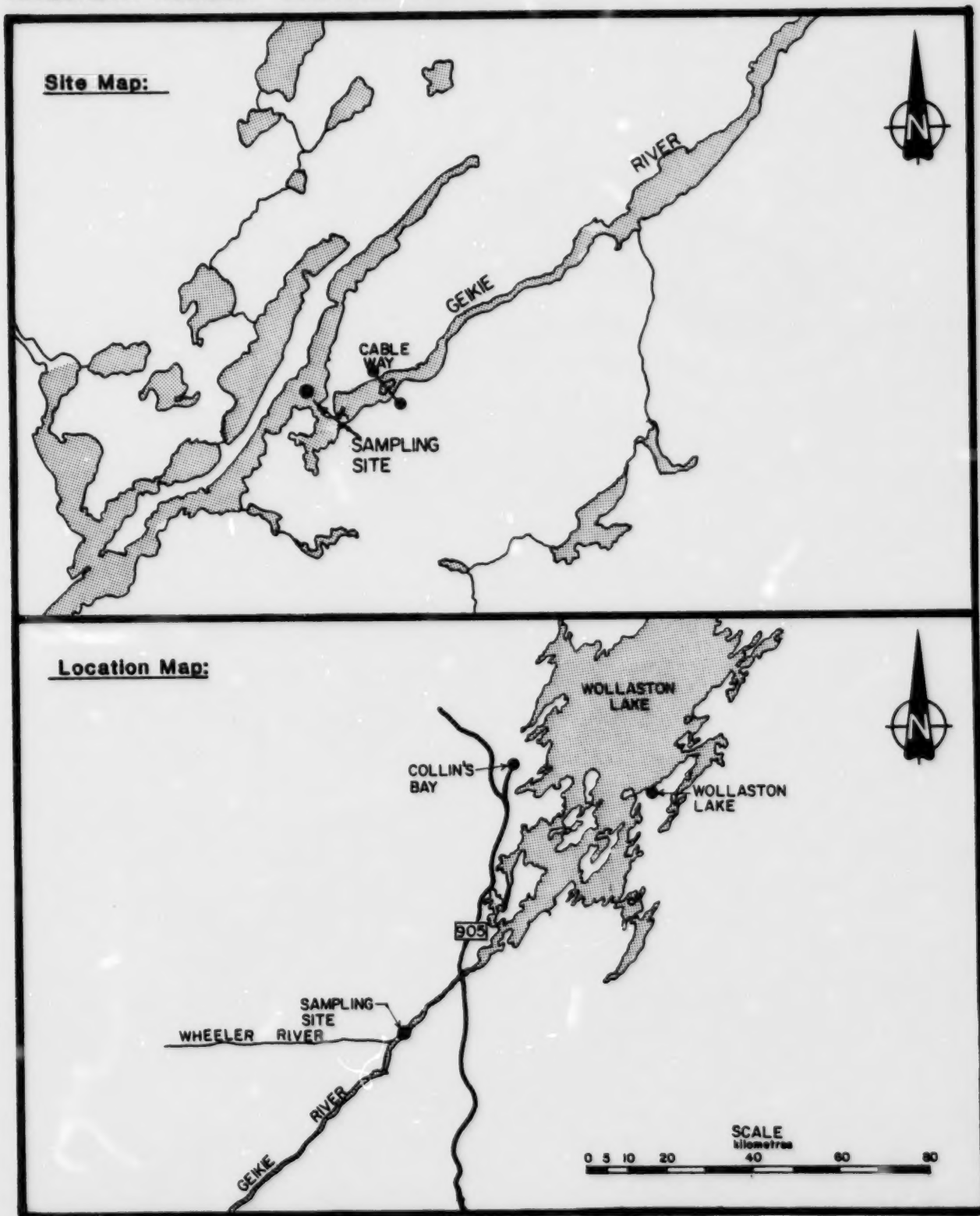
REPORTS AVAILABLE FOR THIS SITE: None

PREPARED OR REVISED BY: P. W. NEIL DATE: July 20, 1988

STATION PROFILE SITE and LOCATION MAPS

Geikie River Below Junction of Wheeler River, Sask.

NAQUADAT NUMBER: 00SA06DA0001



STATION PROFILE

STATION NAME: Geikie River Below Junction of Wheeler River, Sask.

NAQUADAT NUMBER: 00SA06DA0001
PROJECT REFERENCE NUMBER: 312-88

WSC REFERENCE NUMBER: 06DA004
SUBMITTER I.D.: 0003

LOCATION: Latitude: 57~ 35' 20" Longitude: 104~ 12' 10"

Samples taken from pontoon of fixed-wing aircraft.

Care must be taken during slushy conditions as pontoons could stick.

STATION ESTABLISHED: JUNE 1985

PERIOD OF RECORD: JUNE 1985

STATION TYPE: Network, trace element, metals, radioactivity

EXPECTED FIELD OBSERVATIONS:

	DO	pH	SPECIFIC COND.	TEMP.
WINTER -	11.2	7.3	27	0.3
SPRING -	11.1	7.1	24	8.0
SUMMER -	8.4	6.8	22	16.5
FALL -	8.9	7.1	20	5.0

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1966-

SEDIMENT DATA: Not available.

ISSUES:

REPORTS AVAILABLE FOR THIS SITE:

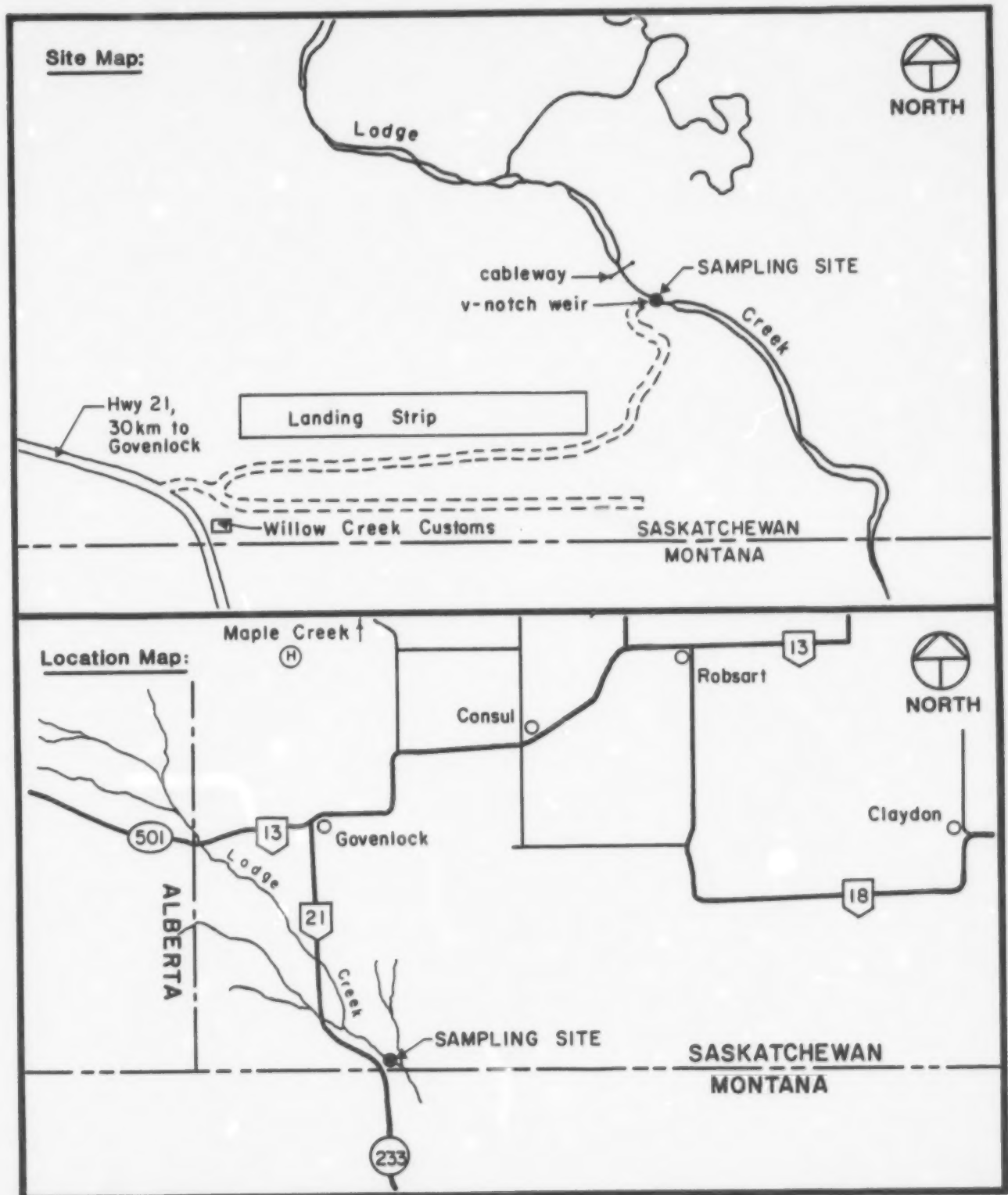
PREPARED OR REVISED BY: P.W. NEIL

DATE: JULY 6, 1988

STATION PROFILE SITE and LOCATION MAPS

Lodge Creek near Willow Creek at Hwy 21, SASKATCHEWAN

NAQUADAT NUMBER: 00SA11AB0007



 STATION PROFILE

STATION NAME: Lodge Creek near Willow Creek at Hwy 21, Sask.

NAQUADAT NUMBER: 00SA11AB0007
 PROJECT REFERENCE NUMBER: 312-88

WSC REFERENCE NUMBER: 11AB006
 SUBMITTER I.D.: 0001 (1975-)

LOCATION: Latitude: 49° 00' 24" Longitude: 109° 43' 30"

Sampling location at the V-notch weir at the international boundary. Samples are collected by WSC field technicians monthly between the March 1 to October 31. Zero discharge usually occurs during mid-summer months.

STATION ESTABLISHED: June 5, 1979

PERIOD OF RECORD: June 5, 1979 - ONGOING

STATION TYPE: Network, field physicals, nutrients, bacteria, major ions, metals & herbicide,

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -					
SPRING -					
SUMMER -	9.0	7-9.3		300-700	15-22
FALL -					

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1951

SEDIMENT DATA: Not Available.

ISSUES:

- The purpose of this station is to monitor water quality crossing the international boundary to meet the commitments under the Boundary Waters treaty. Discharge at the station is regulated by upstream reservoirs.

REPORTS AVAILABLE FOR THIS SITE: None

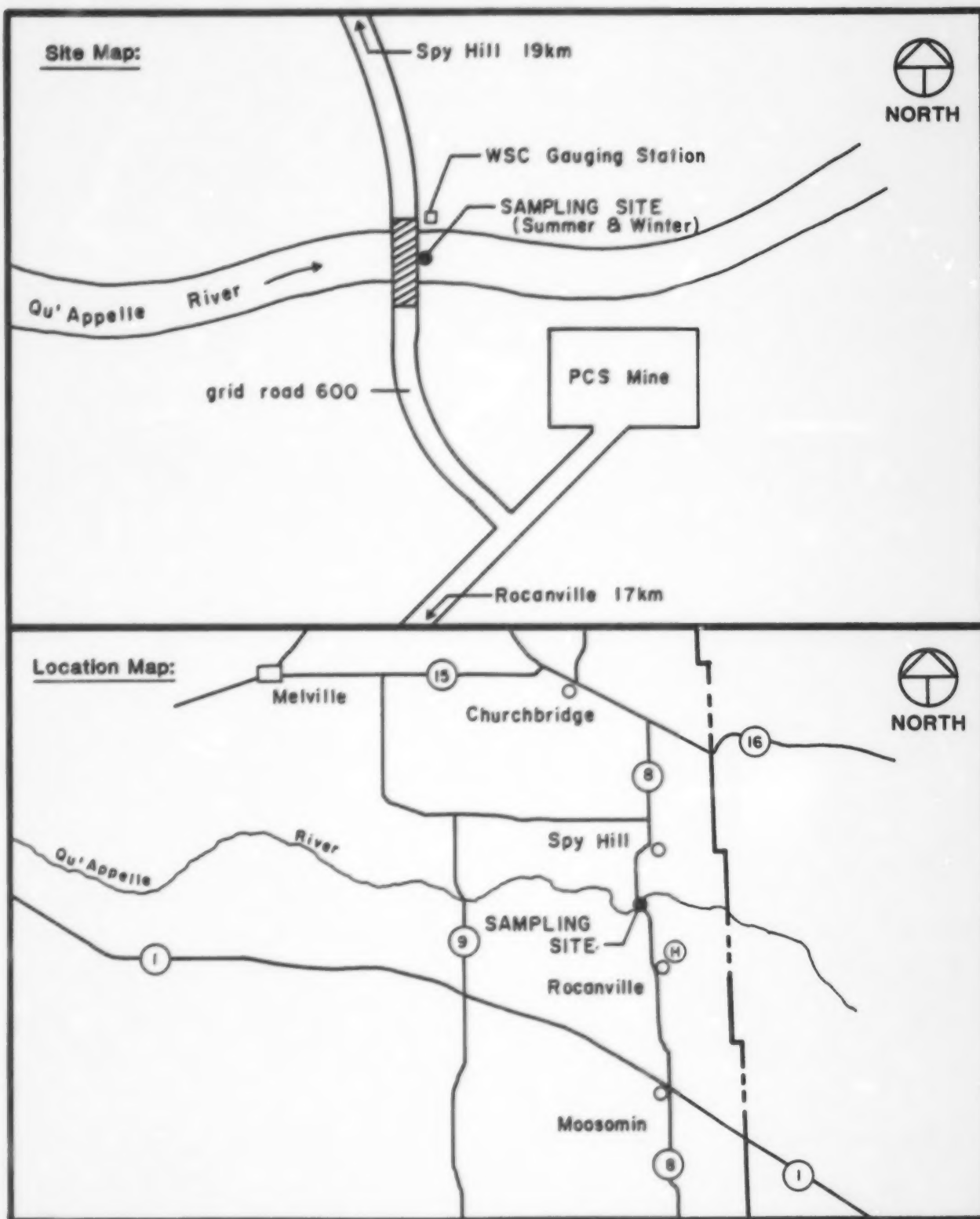
PREPARED OR REVISED BY: P. W. NEIL

DATE: July 20, 1988

STATION PROFILE SITE and LOCATION MAPS

Qu'Appelle River near Welby

NAQUADAT NUMBER: 00SA05JM0014



 STATION PROFILE

STATION NAME: Qu'Appelle River Near Welby, SASKATCHEWAN

NAQUADAT NUMBER: 05SA05JM0014
 PROJECT REFERENCE NUMBER: 315

WSC REFERENCE NUMBER: 05JM014
 SUBMITTER I.D.: 0462

LOCATION: Latitude: 50° 29' 02" Longitude: 101° 32' 35"

Samples are collected from bridge on grid road. Under winter conditions, samples are collected just downstream of bridge.

STATION ESTABLISHED: March, 1974

PERIOD OF RECORD: 1974-

STATION TYPE: Monthly, major ions, nutrients, heavy metals, biocides.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	6-14	7.5-8.5	5 - 10	900 - 1900	0-5
SPRING -	7-14	7.5-8.5	5 - 20	700 - 1600	0-20
SUMMER -	6-14	7.5-8.5	5 - 70	900 - 1700	10-25
FALL -	7-14	7.5-8.5	5 - 50	900 - 1700	0-15

ISSUES:

- Interprovincial river water quality data.
- Quality affected by agriculture, and mining.

REPORTS AVAILABLE FOR THIS SITE:

- PPWB Report #50, "Interprovincial River Water Quality Data at the Alberta-Saskatchewan and Manitoba-Saskatchewan Borders, January 1960 to April 1974.
- Graphical summaries of water quality data collected at St. Lazare (and area) are available on request from PPWB Secretariate.

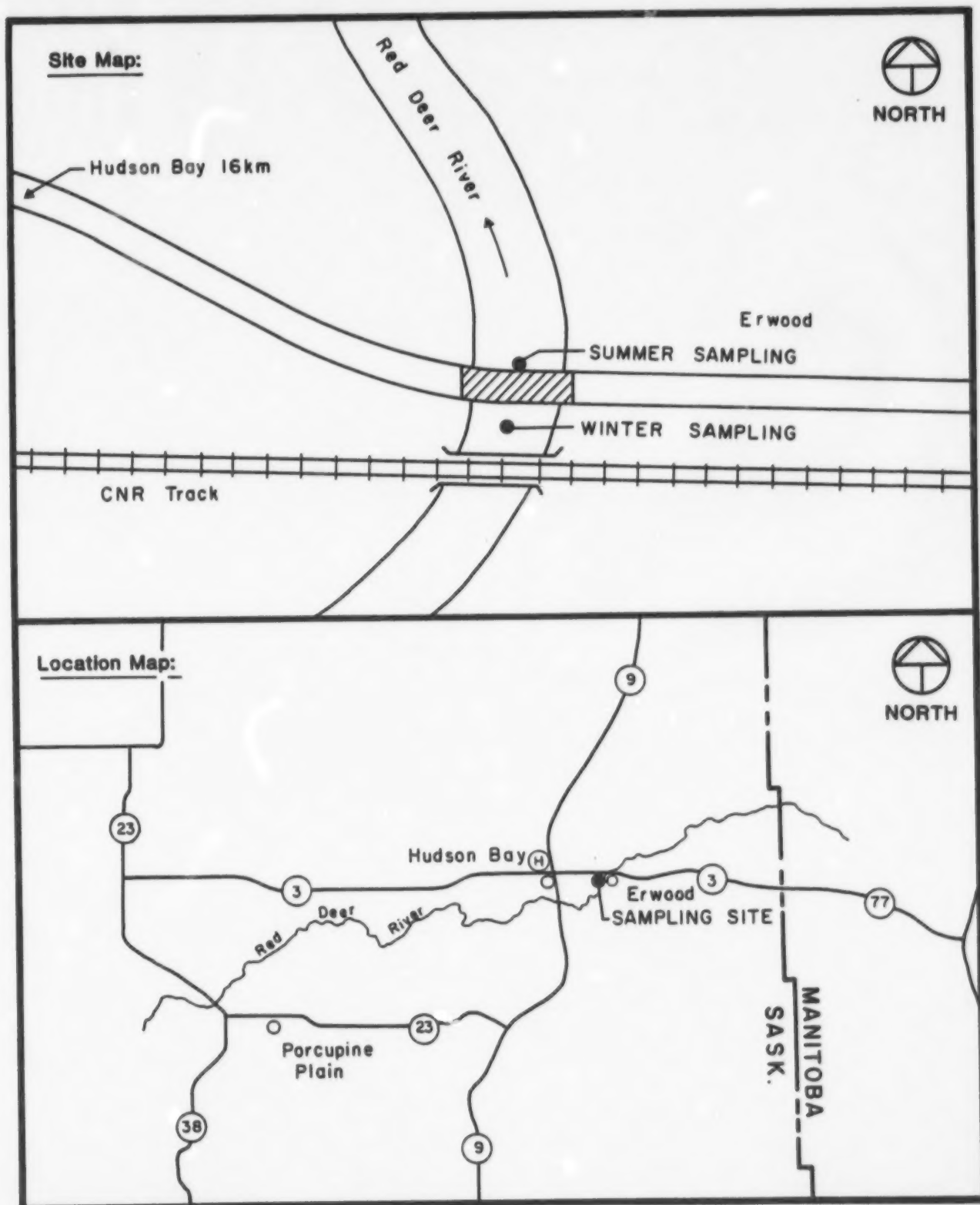
PREPARED OR REVISED BY: Bob Woychuk

DATE: October 12, 1988

STATION PROFILE SITE and LOCATION MAPS

Red Deer River near Erwood SASK.

NAQUADAT NUMBER: 00SA05LC0001



STATION PROFILE

STATION NAME: Red Deer River near Erwood, SASKATCHEWAN

NAQUADAT NUMBER: 00SK05LC0001
PROJECT REFERENCE NUMBER: 315

WSC REFERENCE NUMBER: 05LC001
SUBMITTER I.D.: 0462

LOCATION: Latitude: 52° 52' 05" Longitude: 102° 10' 59"

Sampling location is at bridge on Hwy 3, approximately 16km E of Hudson Bay. During open water, samples collected from bridge. During winter, samples are collected upstream, approximately 30m from bridge

STATION ESTABLISHED: September, 1966

PERIOD OF RECORD: 1966-

STATION TYPE: Monthly, major ions, nutrients, heavy metals, biocides.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	2-14	7-8.0		200-1200	0-2
SPRING -	6-14	7-8.0		200-600	0-10
SUMMER -	6-14	7-8.5		200-600	10-25
FALL -	6-14	7-8.5		300-1500	0-15

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1953-

SEDIMENT DATA: 1980-

ISSUES:

- Lumbering and Agriculture

REPORTS AVAILABLE FOR THIS SITE:

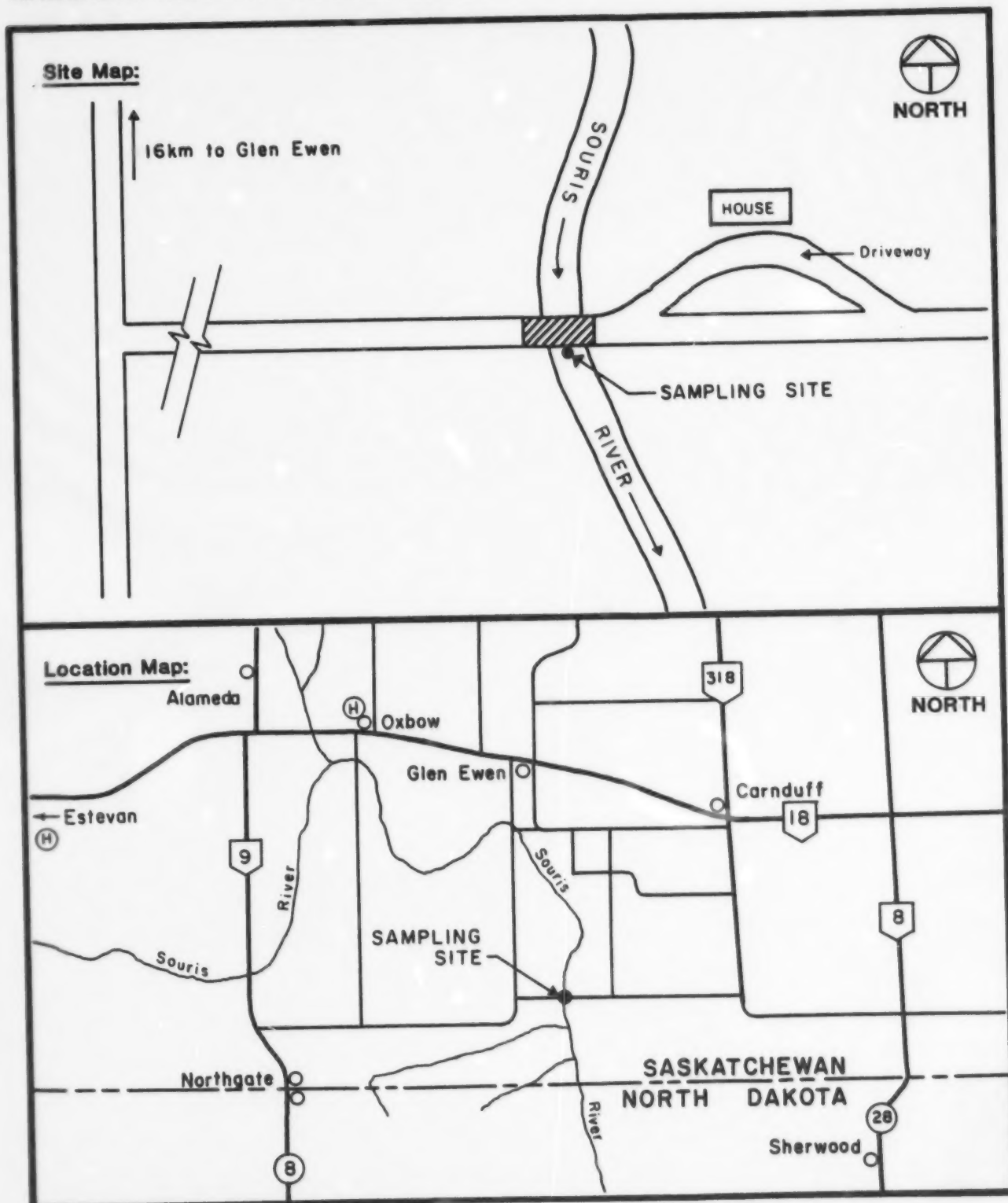
- PPWB Report #50 (1960 - 1974)

PREPARED OR REVISED BY: Bob Woychuck

DATE: October 12, 1988

STATION PROFILE SITE and LOCATION MAPS

Souris River 16km South of Glen Ewen, SASKATCHEWAN
NAQUADAT NUMBER: 00SA05ND0003



 STATION PROFILE

STATION NAME: Souris River 16 km S. of Glen Ewen, Sask.

NAQUADAT NUMBER: 00SA05ND0003
 PROJECT REFERENCE NUMBER: 312-88

WSC REFERENCE NUMBER: 05ND001
 SUBMITTER I.D.: 0003

LOCATION: Latitude: 49~ 03' 31" Longitude: 101~ 59' 29"

Sampling is at bridge on grid road running E-W (16 km directly south of Glen Ewen). During ice-cover, sample down stream of the bridge.

STATION ESTABLISHED: May, 1988 (replaced 00SA05ND0001)

PERIOD OF RECORD: May 1988 - Ongoing

STATION TYPE: Monthly, major ions, nutrients, heavy metals, & biocides

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	0-4	6-7.9	1-50	800-2000	0-5
SPRING -	3-8	6-8.1	1-80	100-1500	0-20
SUMMER -	5-9	7-8.6	1-80	300-1500	10-25
FALL -	6-13	7-8.3	1-80	300-200	0-20

WSC HYDROMETRIC STATION PERIOD OF RECORD: Monitored at Glen Ewen Site

SEDIMENT DATA: Not Available

ISSUES:

- In 1987, the village of Glen Ewen planned to build a pipeline to discharge effluent from a sewage lagoon to the Souris River. As changes could occur to river quality, the Glen Ewen site was moved downstream to monitor water quality alterations.
- With the planned construction of the Rafferty and Alameda dams there has been increased attention on water supply and quality. Water quality data from this site could serve as a means to monitor any effects from these projects.

REPORTS AVAILABLE FOR THIS SITE:

- Discussion paper comparing data from Glen Ewen to this site.

PREPARED OR REVISED BY: P. W. Neil

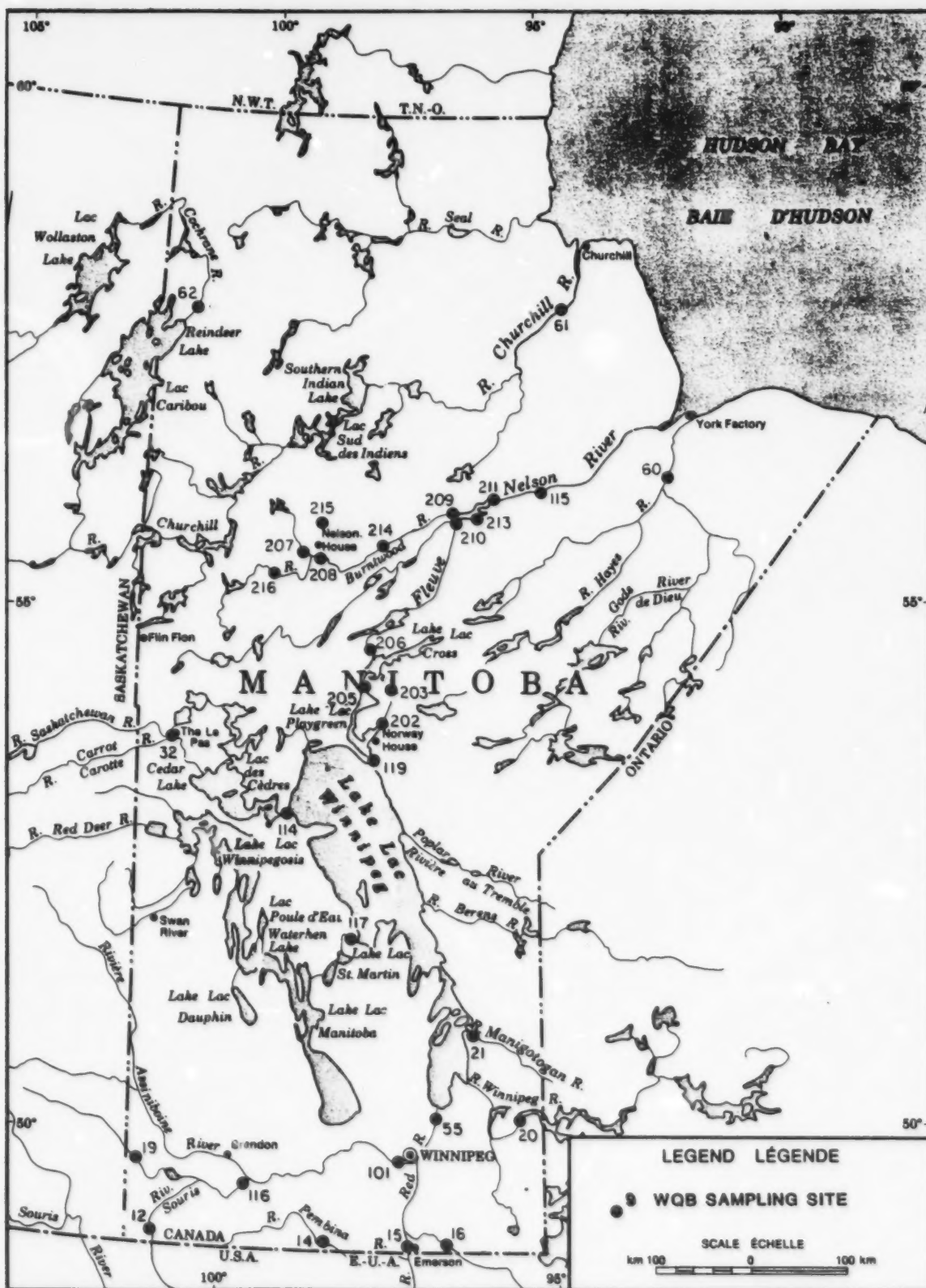
DATE: July 7, 1988

MANITOBA
WATER QUALITY SITES

WQB - W&NR

Manitoba District Office
Water Quality Branch
133-501 University Cr.
Winnipeg, Manitoba
R3T 2N6
(204) 983-5035





MANITOBA WATER QUALITY MONITORING

PROJECT 313 -- Canada-Manitoba Water Quality Agreement

- 12. Souris River at Coulter, Highway #251
- 14. Pembina River at Windygates
- 16. Roseau River at Gardenton

Monthly sampling for these international sites is carried out for a wide variety of parameters. Unusual values may be followed up with re-surveys. Governments concerned are notified of potential and real problems.

- 59. Nelson River below Kettle Generating Station
- 60. Hayes River below junction with Gods River
- 61. Churchill River above Red Head Rapids
- 62. Cochrane River near Brochet

These northern Manitoba sites are sampled by the Water Resources Branch on a quarterly basis.

- 19. Pipestone Creek, 0.4 km from Cromer on Highway #255
- 20. Winnipeg River at Pointe Du Bois
- 21. Manigotagan River at Highway 304 bridge

Pipestone Creek is operated due to its significance as a trans-boundary stream with political and provincial concerns. The Winnipeg River is monitored as it is the largest input into Lake Winnipeg. The Manigotagan station is operated as a benchmark pre-cambrian shield site that has not been influenced by man's activities.

PROJECT 306 -- International Red River Pollution Board

- 15. Red River at Emerson

Under IJC, the Red River monitoring was established in 1968 to provide a continuous surveillance of water quality at the Canada-U.S. border. A monitor is operated on a continuous basis obtaining dissolved oxygen, pH, conductivity, chloride and temperature. Monthly samples are also collected.

. . . continued next page

PROJECT 315 - Prairie Provinces Water Board Monitoring (MANITOBA-SASKATCHEWAN Boundary)

32. Saskatchewan River above Carrot River

Five other sites along the Saskatchewan-Manitoba border are described in the Saskatchewan section of this book. For these interprovincial rivers the Water Quality Branch provides data, interpretation, and advice to the Prairie Provinces Water Board (PPWB). Stations are sampled monthly.

PROJECT 318 -- Northern Manitoba Flood Agreement

- 201. Jack River above Norway House (West Channel)*
- 203. Nelson River below Sea River Falls*
- 207. Rat River above Threepoint Lake
- 208. Burntwood River at Outlet of Threepoint Lake
- 209. Burntwood River at Inlet to Split Lake
- 210. Nelson River below Confluence with Grass River
- 211. Nelson River at Outlet of Split Lake
- 213. Aiken River Inlet to Split Lake
- 214. Burntwood River near Thompson
- 215. Footprint River above Footprint Lake
- 216. Burntwood River above Threepoint Lake

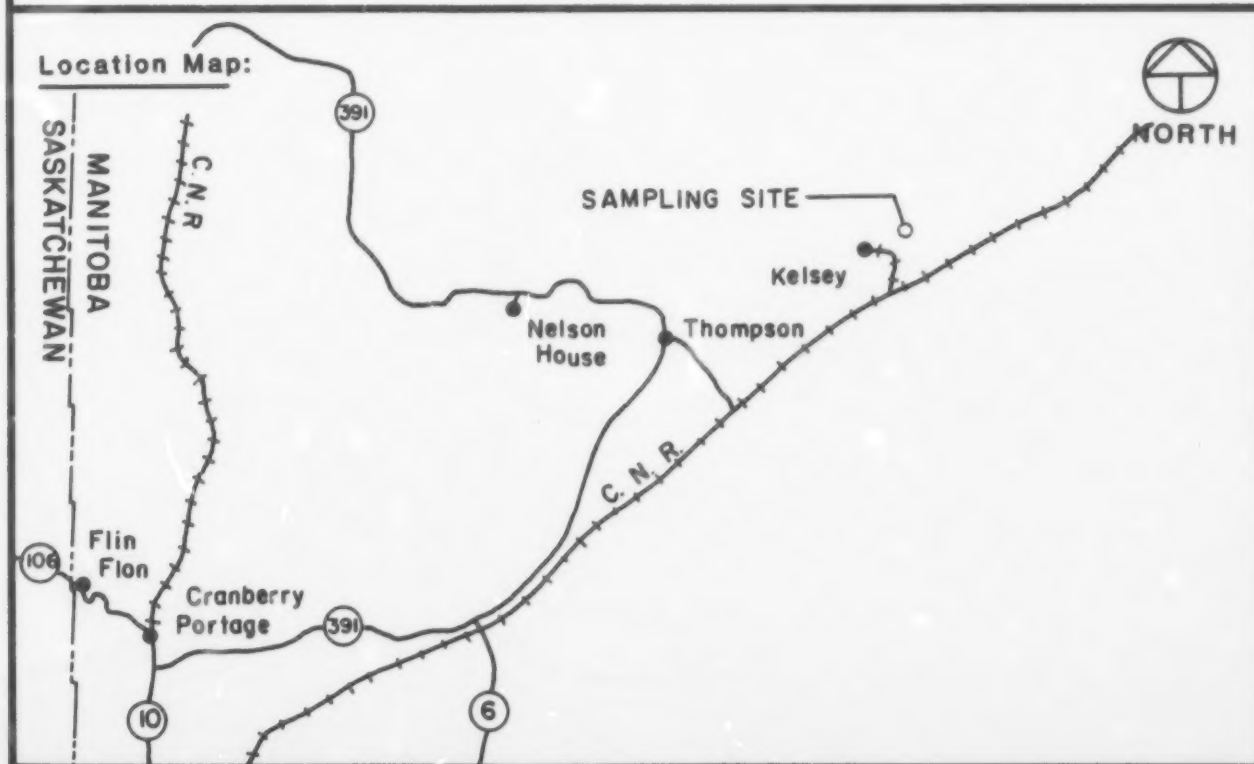
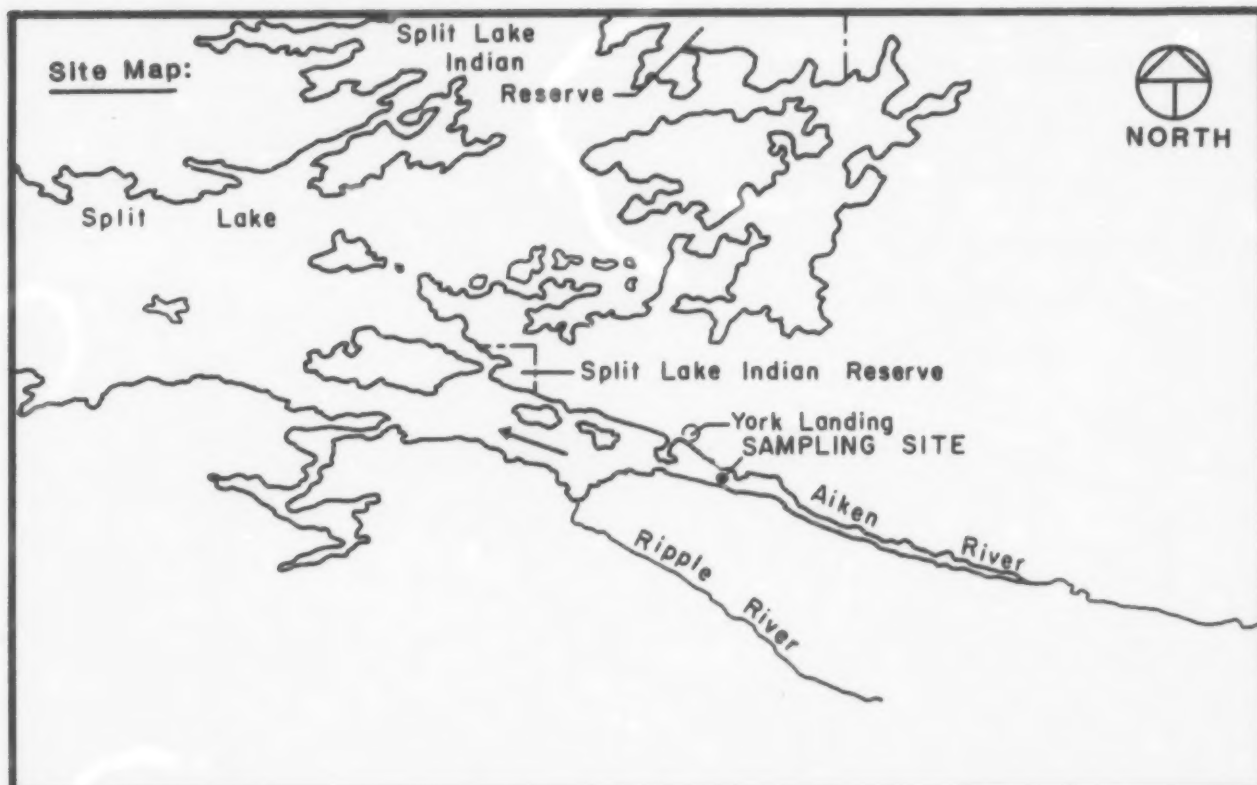
The objective of this monitoring network is to quantify the effects of the Churchill River Diversion on water quality in the Northern Flood Agreement (NFA) study area. The long term ecological monitoring program extends 5 years (1988 is the third year). Bimonthly sampling is carried out during open water, and collections are made monthly under ice conditions from January to March. * Monthly samples are collected at stations 201 and 203.



STATION PROFILE SITE and LOCATION MAPS

Aiken River Inlet to Split Lake, MANITOBA

NAQUADAT NUMBER: 00MA05UF0004



STATION PROFILE

STATION NAME: Aiken River Inlet to Split Lake, Manitoba

NAQUADAT NUMBER: 00MA05UF0004
PROJECT REFERENCE NUMBER: 318

WSC REFERENCE NUMBER:
SUBMITTER I.D.: 0418

LOCATION: Latitude: 56~ 04' 42" Longitude: 96~ 05' 17"

Access is by helicopter in winter, float plan during open-water period

STATION ESTABLISHED: Northern Flood Agreement (NFA) station

PERIOD OF RECORD: 1987-

STATION TYPE: Sampled monthly in winter, and twice monthly in June,
July, August and September.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER	-				
SPRING	-				
SUMMER	-				
FALL	-				

ISSUES:

- Station is a potential unimpacted reference for stations affected by Churchill River Diversion, and/or Lake Winnipeg Regulation. York Landing community is located near station.
-

REPORTS AVAILABLE FOR THIS SITE:

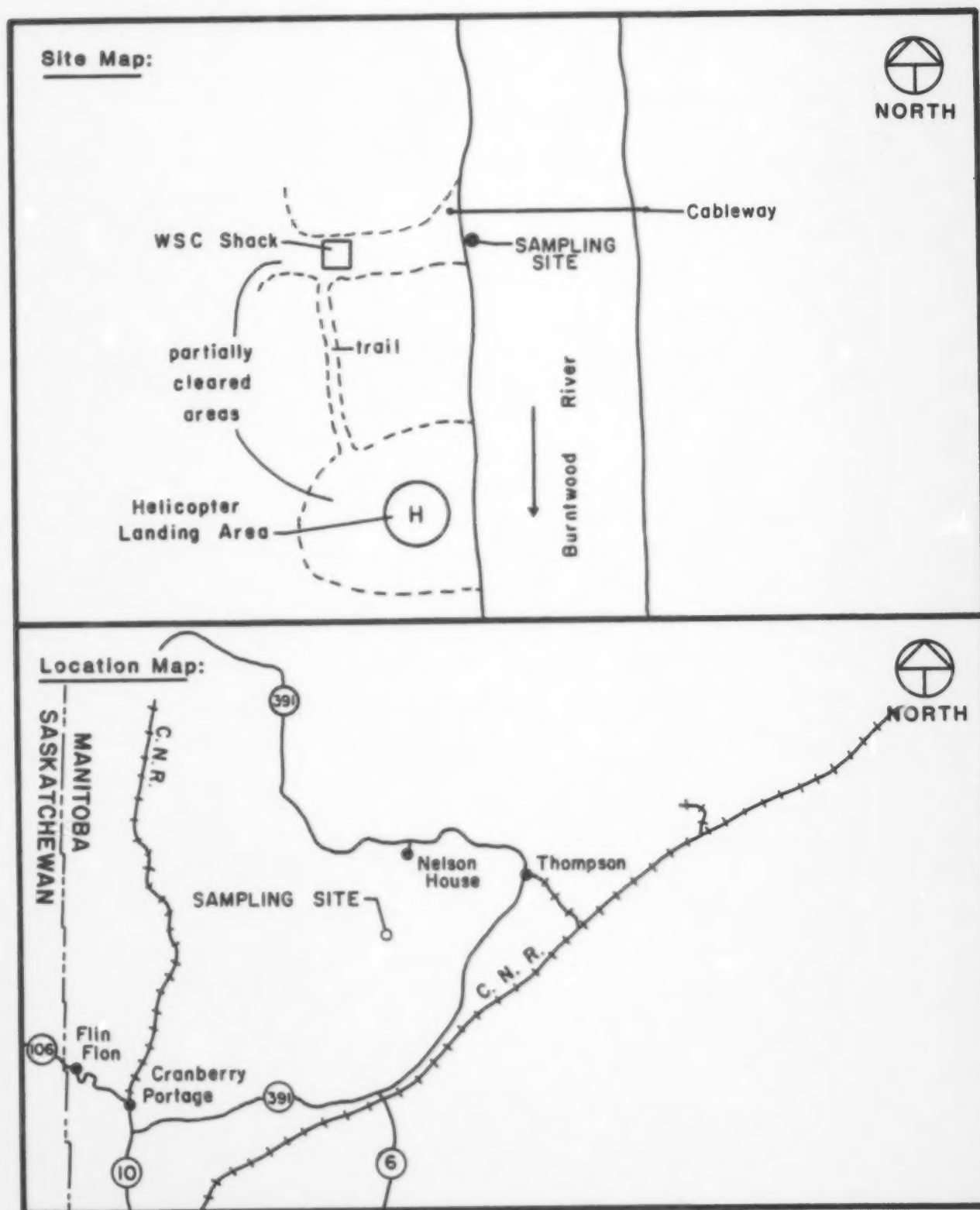
PREPARED BY: Lee Grapentine

DATE: July 31, 1988

STATION PROFILE SITE and LOCATION MAPS

Burntwood River above Threepoint Lake, MANITOBA

NAQUADAT NUMBER: 00MA05TE0001



STATION PROFILE

STATION NAME: Burntwood River above Threepoint Lake, MANITOBA

NAQUADAT NUMBER: 00MA05TE0001
PROJECT REFERENCE NUMBER: 318

WSC REFERENCE NUMBER: 05TE001
SUBMITTER I.D.: 0418

LOCATION: Latitude: 55~ 29' 09" Longitude: 99~ 13' 33"

Access is by helicopter.

This station was established due to the relocation of a water quality station at the inlet of the Burntwood R. to Threepoint Lake. The pre-existing station (00MA05TF0002) was sampled from 1971-74.

STATION ESTABLISHED: Northern Flood Agreement (NFA) station

PERIOD OF RECORD: 1987-

STATION TYPE: Sampled monthly in winter, and twice monthly in June, July, August and September.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -					
SPRING -					
SUMMER -					
FALL -					

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1977-

SEDIMENT DATA: Not available

ISSUES:

- Station is sampled as a potential unimpacted reference for other stations affected by the Churchill River Diversion.

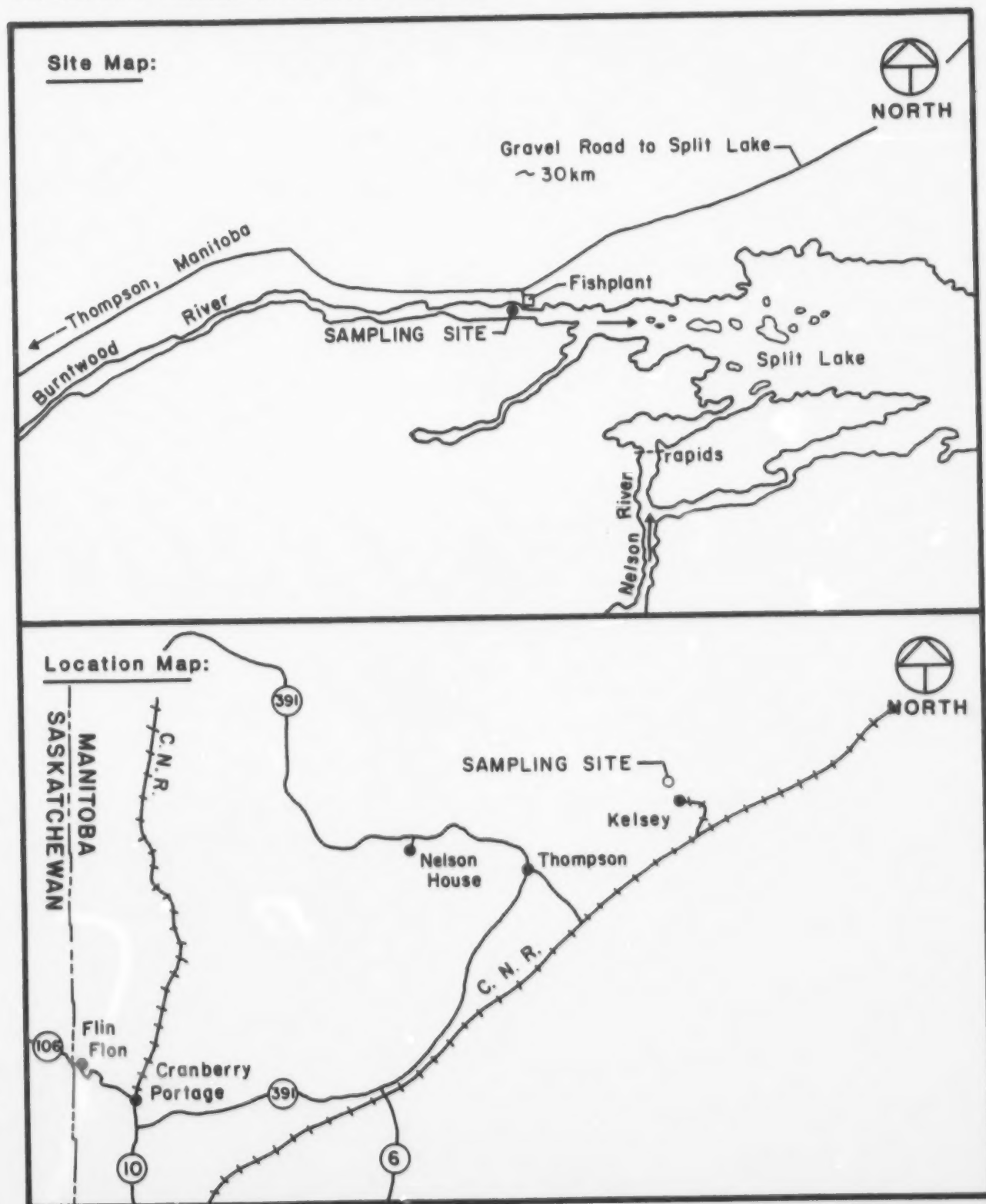
REPORTS AVAILABLE FOR THIS SITE:

PREPARED BY: Lee Grapentine

DATE: July 31, 1988

STATION PROFILE SITE and LOCATION MAPS

Burntwood River Inlet to Split Lake, MANITOBA
NAQUADAT NUMBER: 00MA05TG0003



STATION PROFILE

STATION NAME: Burntwood River at Inlet to Split Lake, MANITOBA

NAQUADAT NUMBER: 00MA05TG0003
PROJECT REFERENCE NUMBER: 318

WSC REFERENCE NUMBER:
SUBMITTER I.D.: 0418

LOCATION: Latitude: 56~ 08' 30" Longitude: 96~ 36' 45"

Access is by helicopter in winter, float plan during open-water period

STATION ESTABLISHED: Northern Flood Agreement (NFA) station

PERIOD OF RECORD: 1987-

STATION TYPE: Sampled monthly in winter, and twice monthly in June,
July, August and September.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER	-				
SPRING	-				
SUMMER	-				
FALL	-				

ISSUES:

- Station located on Churchill River Diversion route.

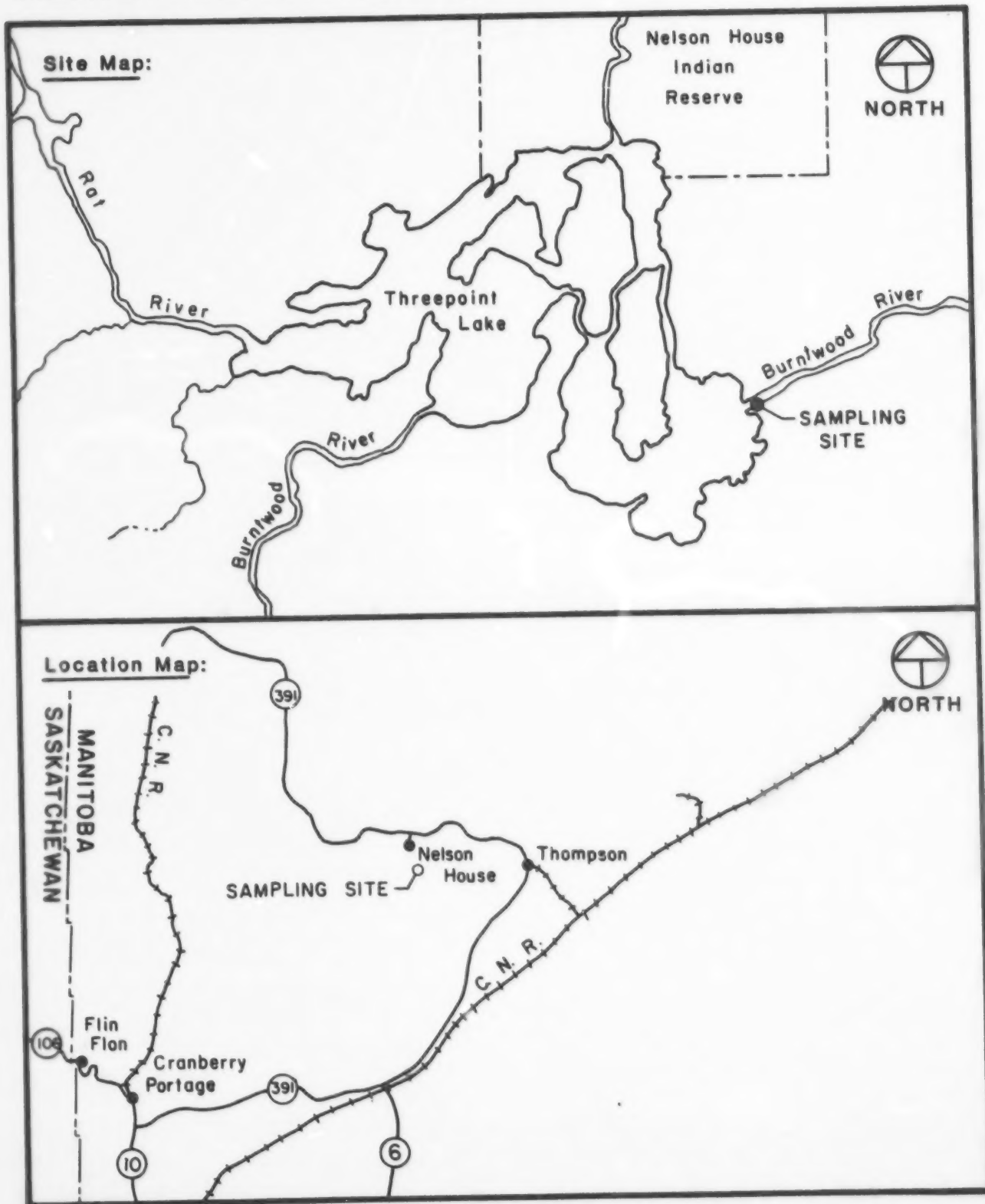
REPORTS AVAILABLE FOR THIS SITE:

PREPARED BY: Lee Grapentine

DATE: July 31, 1988

STATION PROFILE SITE and LOCATION MAPS

Burntwood River at outlet of Threepoint Lake, MANITOBA
NAQUADAT NUMBER: 00MA05TF0004



STATION PROFILE

STATION NAME: Burntwood River at Outlet of Threepoint Lake, MANITOBA

NAQUADAT NUMBER: 00MA05TF0004

WSC REFERENCE NUMBER:

PROJECT REFERENCE NUMBER: 318

SUBMITTER I.D.: 0418

LOCATION: Latitude: 55~ 41' 00" Longitude: 98~ 51' 00"

Access is by helicopter in winter, float plane or boat in open water season.

STATION ESTABLISHED: Northern Flood Agreement (NFA) station

PERIOD OF RECORD: 1987-

STATION TYPE: Sampled monthly in winter, and twice monthly in June, July, August and September.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -					
SPRING -					
SUMMER -					
FALL -					

ISSUES:

- Station is directly on Churchill River diversion route to Nelson River (since 1976)

REPORTS AVAILABLE FOR THIS SITE:

PREPARED BY: Lee Grapentine

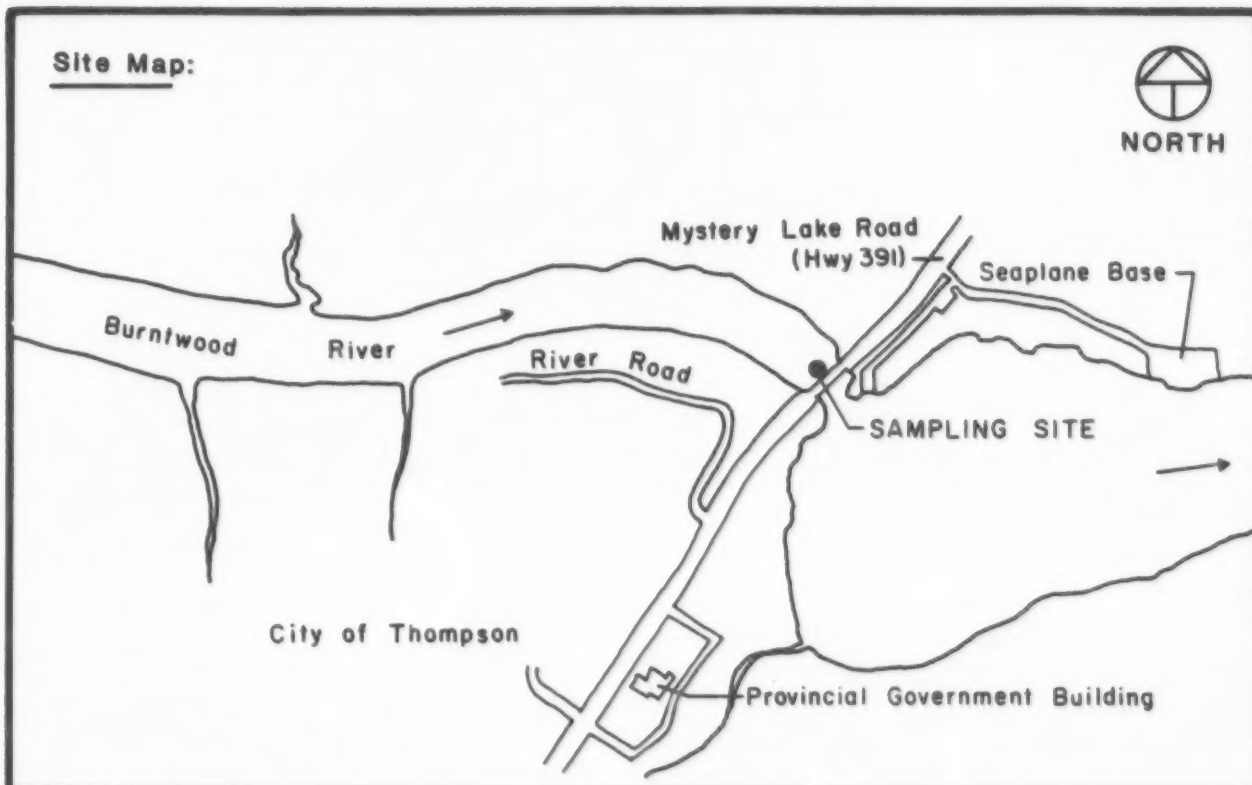
DATE: July 31, 1988

STATION PROFILE SITE and LOCATION MAPS

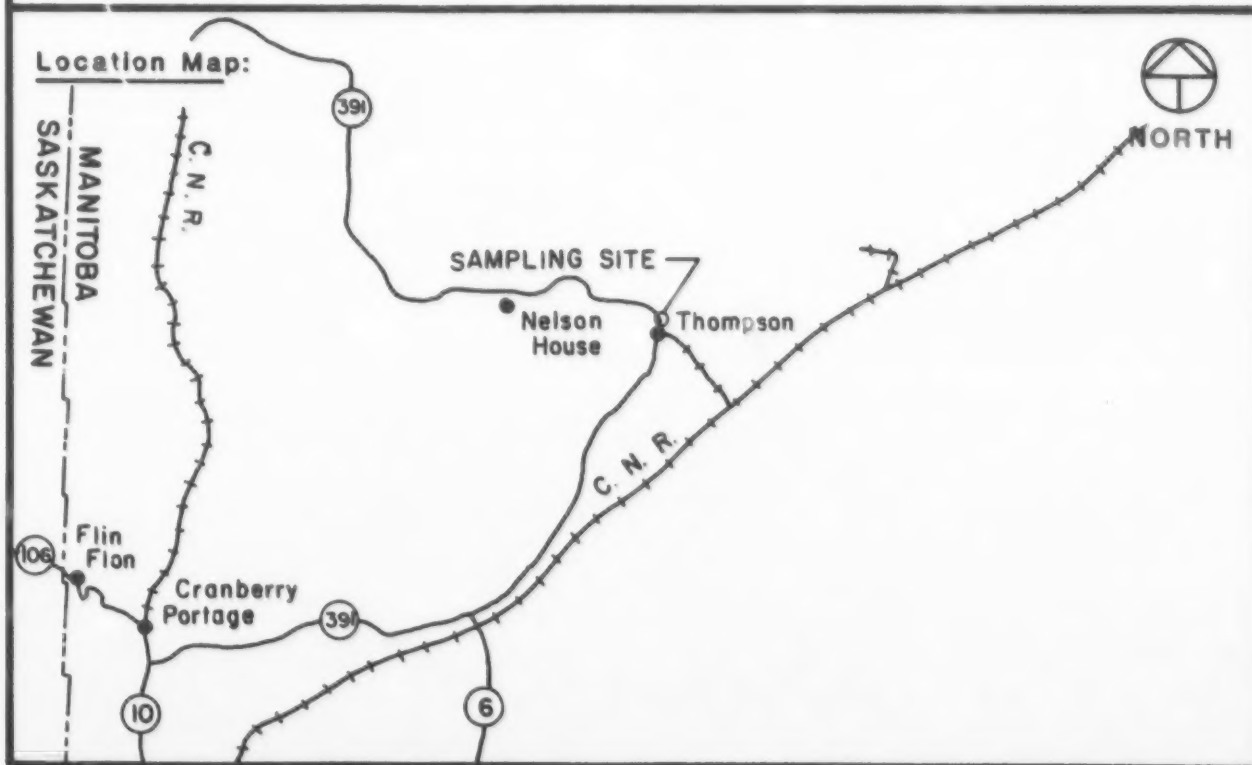
Burntwood River near Thompson, MANITOBA

NAQUADAT NUMBER: 00MA05TG0001

Site Map:



Location Map:



STATION PROFILE

STATION NAME: Burntwood River near Thompson, MANITOBA

NAQUADAT NUMBER: 00MA05TE0001
PROJECT REFERENCE NUMBER: 318

WSC REFERENCE NUMBER:
SUBMITTER I.D.: 0418

LOCATION: Latitude: 55° 45' 16" Longitude: 97° 50' 43"

Samples collected from bridge on route 391.

STATION ESTABLISHED: Northern Flood Agreement (NFA) station

PERIOD OF RECORD: 1987-

Apparently this station was previously located upstream of Thompson at the junction of the Taylor River. Samples were collected here from: 1967-70, 1972-78.

STATION TYPE: Sampled monthly in winter, and twice monthly in June, July, August and September.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER	-				
SPRING	-				
SUMMER	-				
FALL	-				

ISSUES:

- Station is on diversion route of Churchill River Diversion. INCO smelting plant is located in Thompson. City of Thompson draws drinking water from river.
-

REPORTS AVAILABLE FOR THIS SITE:

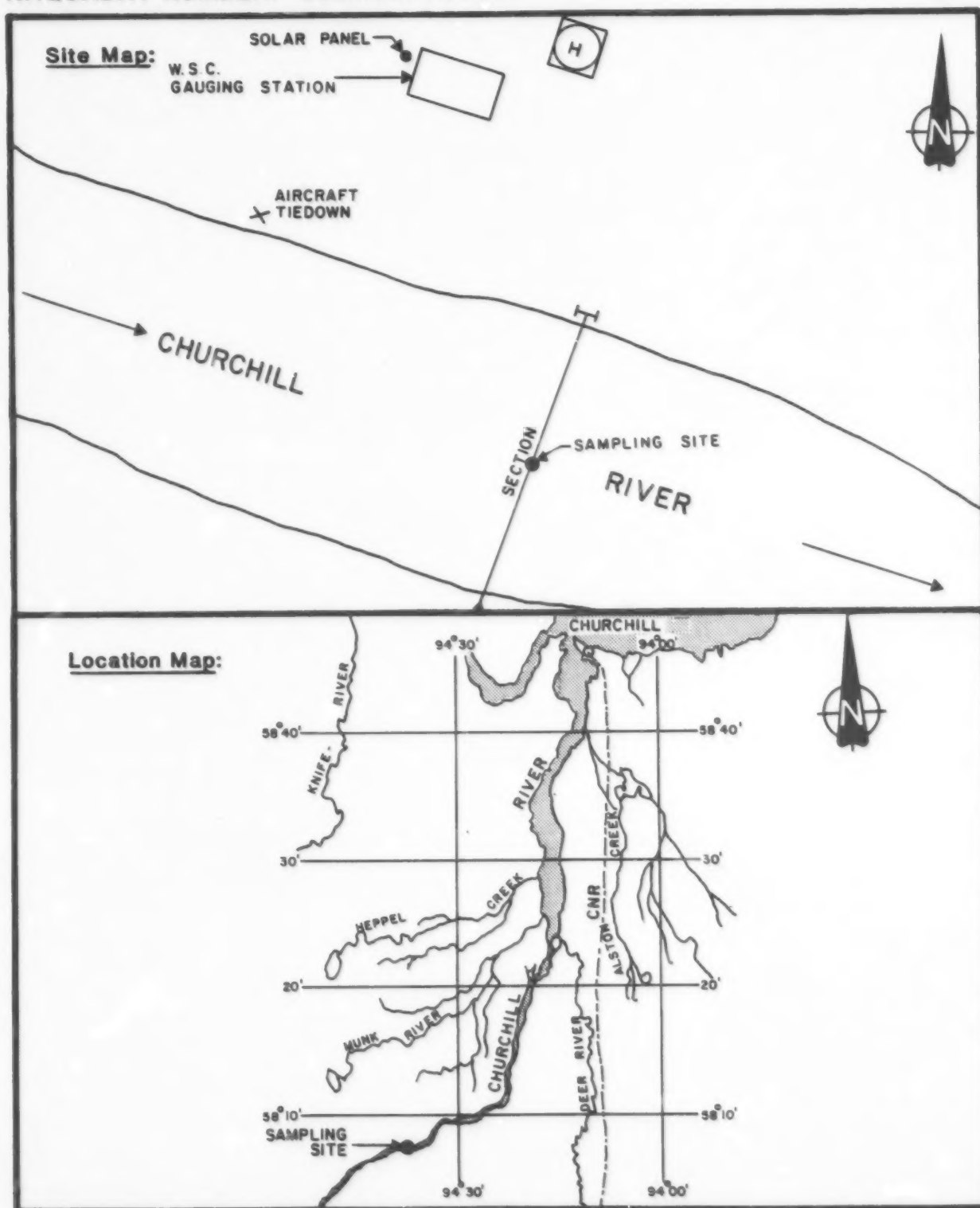
PREPARED BY: Lee Grapentine

DATE: July 31, 1988

STATION PROFILE SITE and LOCATION MAPS

Churchill River above Red Head Rapids, MANITOBA

NAQUADAT NUMBER: 00MA06FD0002



STATION PROFILE

STATION NAME: Churchill River above Red Head Rapids, MANITOBA

NAQUADAT NUMBER: 00MA06FD0002
PROJECT REFERENCE NUMBER: 301

WSC REFERENCE NUMBER: 06FD001
SUBMITTER I.D.: 0001

LOCATION: Latitude: 58~ 07' 15" Longitude: 94~ 37' 30"

During open water, samples are collected from a boat or aircraft.

During winter conditions, a helicopter is used.

STATION ESTABLISHED: August, 1972

PERIOD OF RECORD: 1972-

STATION TYPE: Quarterly, collected by Water Resources Branch.
Major ions, nutrients, heavy metals.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -		7-8.5	0.5-5	90-140	0-2
SPRING -		7-8.5	1-15	80-120	0-10
SUMMER -		7-8.5	1-15	80-120	5-20
FALL -		7-8.5	1-10	80-120	0-15

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1971-

SEDIMENT DATA: Not available

ISSUES:

- The Churchill River Diversion may have significant adverse effects on the water quality of the Churchill River.
-

REPORTS AVAILABLE FOR THIS SITE:

- Lake Winnipeg, Churchill and Nelson River Study Board Reports (1975)
-

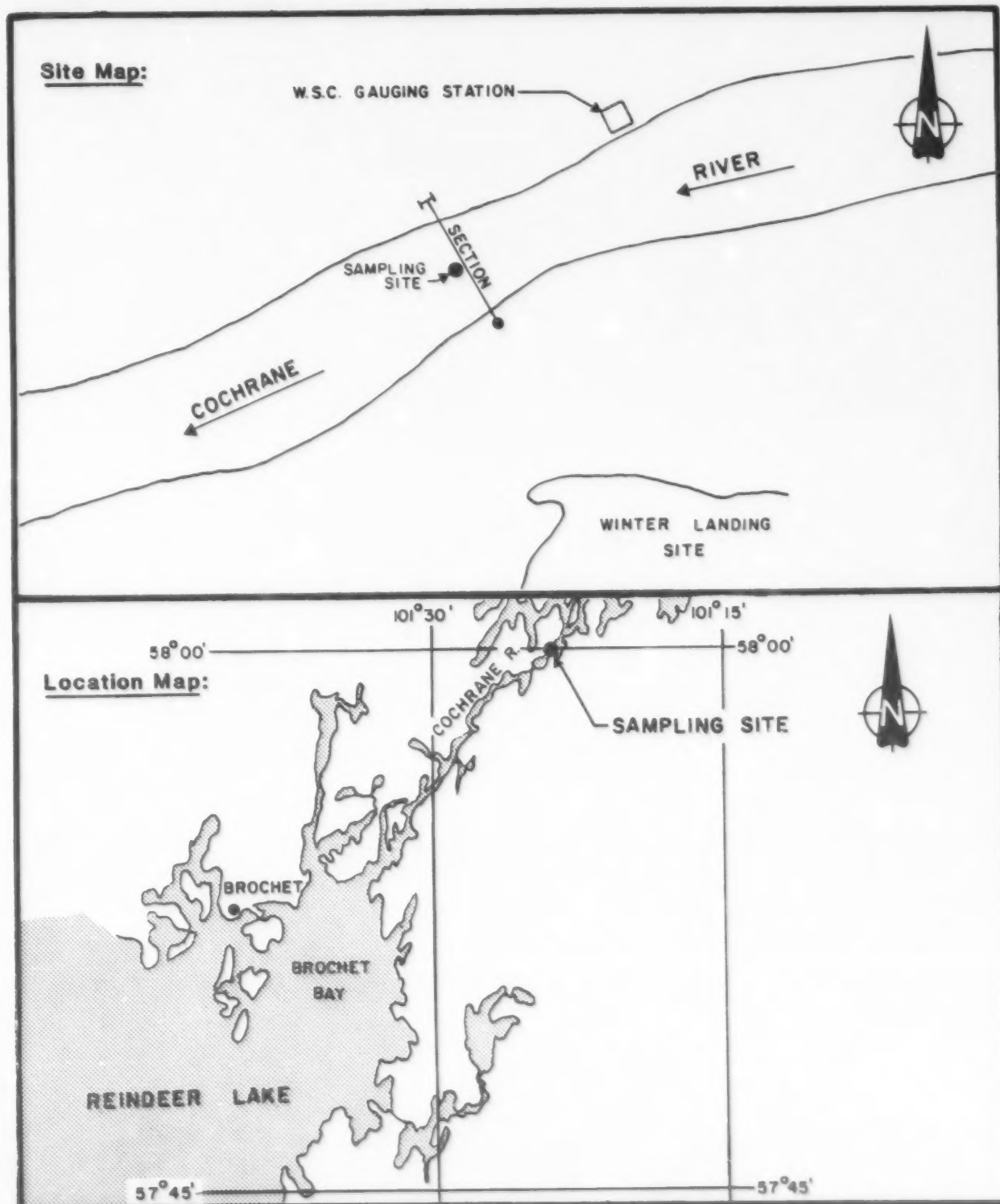
PREPARED OR REVISED BY: Val Chacko

DATE March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Cochrane River near Brochet, MANITOBA

NAQUADAT NUMBER: 00MA06DA0001



STATION PROFILE

STATION NAME: Cochrane River near Brochet, MANITOBA

NAQUADAT NUMBER: 00MA06DA0001
PROJECT REFERENCE NUMBER: 301

WSC REFERENCE NUMBER: 06DA002
SUBMITTER I.D.: 0001

LOCATION: Latitude: 58~ 00' 00" Longitude: 101~ 23' 45"

During open water, samples are collected from a boat or aircraft.

During winter conditions, a helicopter is used.

STATION ESTABLISHED: August, 1972

PERIOD OF RECORD: 1972-

STATION TYPE: Quarterly, collected by Water Resources Branch.
Major ions, nutrients, heavy metals.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -		6.5-7.5	0.2-5	25-90	0-2
SPRING -		6.5-7.5	0.2-10	20-80	0-10
SUMMER -		6.5-7.5	0.2-10	20-80	5-18
FALL -		6.5-7.5	0.2-10	20-80	0-10

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1950, 1966-

SEDIMENT DATA: Not available

ISSUES:

REPORTS AVAILABLE FOR THIS SITE:

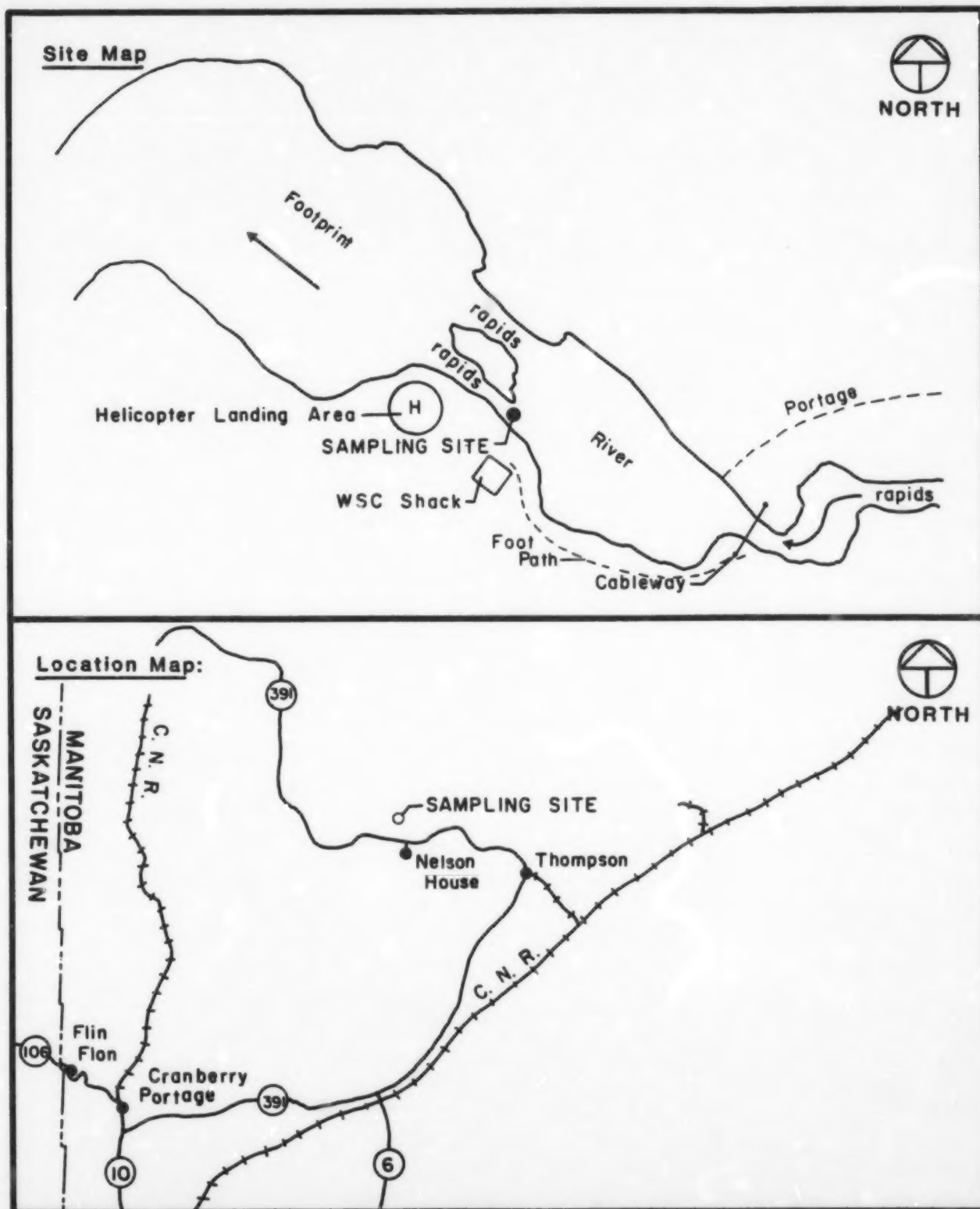
PREPARED OR REVISED BY: Val Chacko

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Footprint River above Footprint Lake, MANITOBA

NAQUADAT NUMBER: 00MA05TF0003



STATION PROFILE

STATION NAME: Footprint River above Footprint Lake, MANITOBA

NAQUADAT NUMBER: 00MA05TF0003
PROJECT REFERENCE NUMBER: 318

WSC REFERENCE NUMBER: 05TF002
SUBMITTER I.D.: 0418

LOCATION: Latitude: 55~ 55' 48" Longitude: 98~ 53' 50"

Access is by helicopter

This station was established due to the relocation of a water quality station at the inlet of the Footprint River to Footprint Lake. The pre-existing station (same NAQUADAT number) was sampled from 1971-74.

STATION ESTABLISHED: Northern Flood Agreement (NFA) station

PERIOD OF RECORD: 1987-

STATION TYPE: Sampled monthly in winter (Jan-Mar), and twice monthly in June, July, August and September.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER	-				
SPRING	-				
SUMMER	-				
FALL	-				

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1977-

SEDIMENT DATA: Not available

ISSUES:

- Station is sampled as a potential unimpacted reference for other stations affected by the Churchill River Diversion. The community of Nelson House is located downstream on Footprint Lake.

REPORTS AVAILABLE FOR THIS SITE:

PREPARED BY: Lee Grapentine

DATE: July 31, 1988

STATION PROFILE SITE and LOCATION MAPS

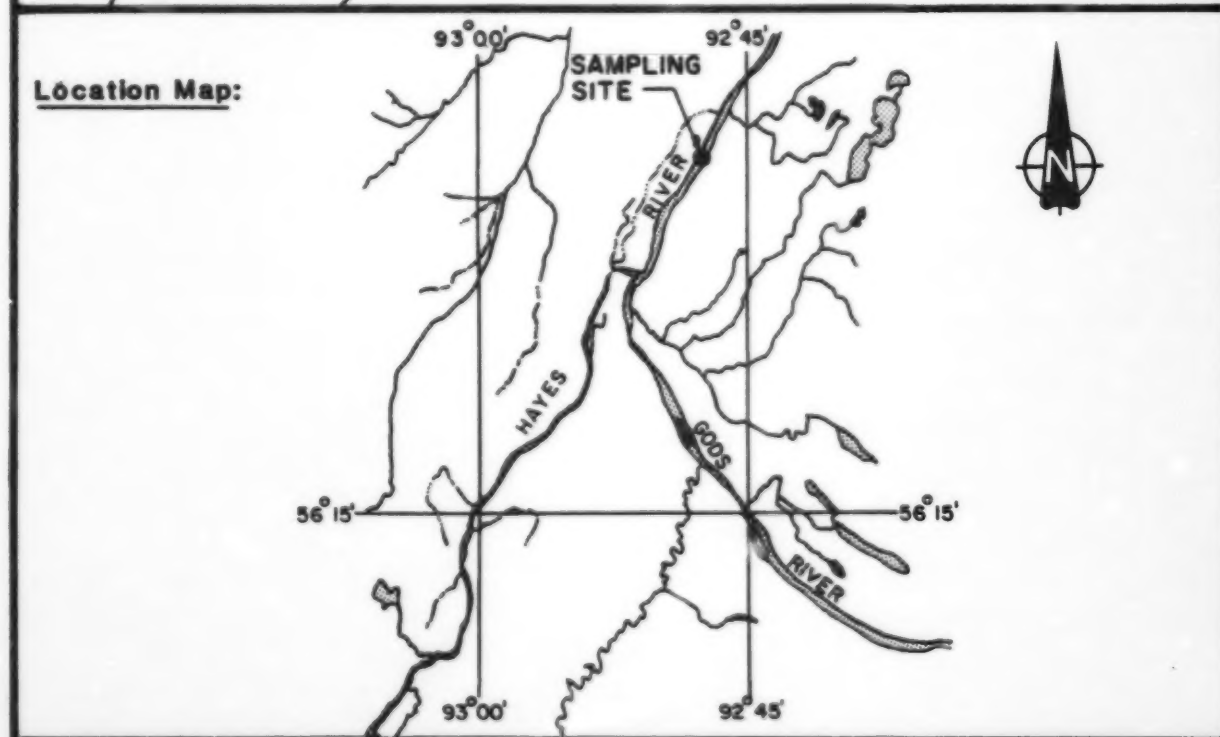
Hayes River below junction with Gods River, MANITOBA

NAQUADAT NUMBER: 00MA04AB0001

Site Map:



Location Map:



STATION PROFILE

STATION NAME: Hayes River below junction with Gods River, MANITOBA

NAQUADAT NUMBER: 00MA04AB0001

WSC REFERENCE NUMBER: 04AB001

PROJECT REFERENCE NUMBER: 301

SUBMITTER I.D.: 0001

LOCATION: Latitude: 56~ 25' 54" Longitude: 92~ 47' 18"

During open water, samples are collected from a boat or aircraft.

During winter conditions, a helicopter is used.

STATION ESTABLISHED: June, 1974

PERIOD OF RECORD: 1974-

STATION TYPE: Quarterly, collected by Water Resources Branch.
Major ions, nutrients, heavy metals, biocides.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -		7-8.5	0.5-5	90-200	0-2
SPRING -		7-8.5	1-15	100-150	0-10
SUMMER -		7-8.5	1-15	100-150	5-20
FALL -		7-8.5	1-10	100-150	0-10

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1972-

SEDIMENT DATA: Not available

ISSUES:

REPORTS AVAILABLE FOR THIS SITE:

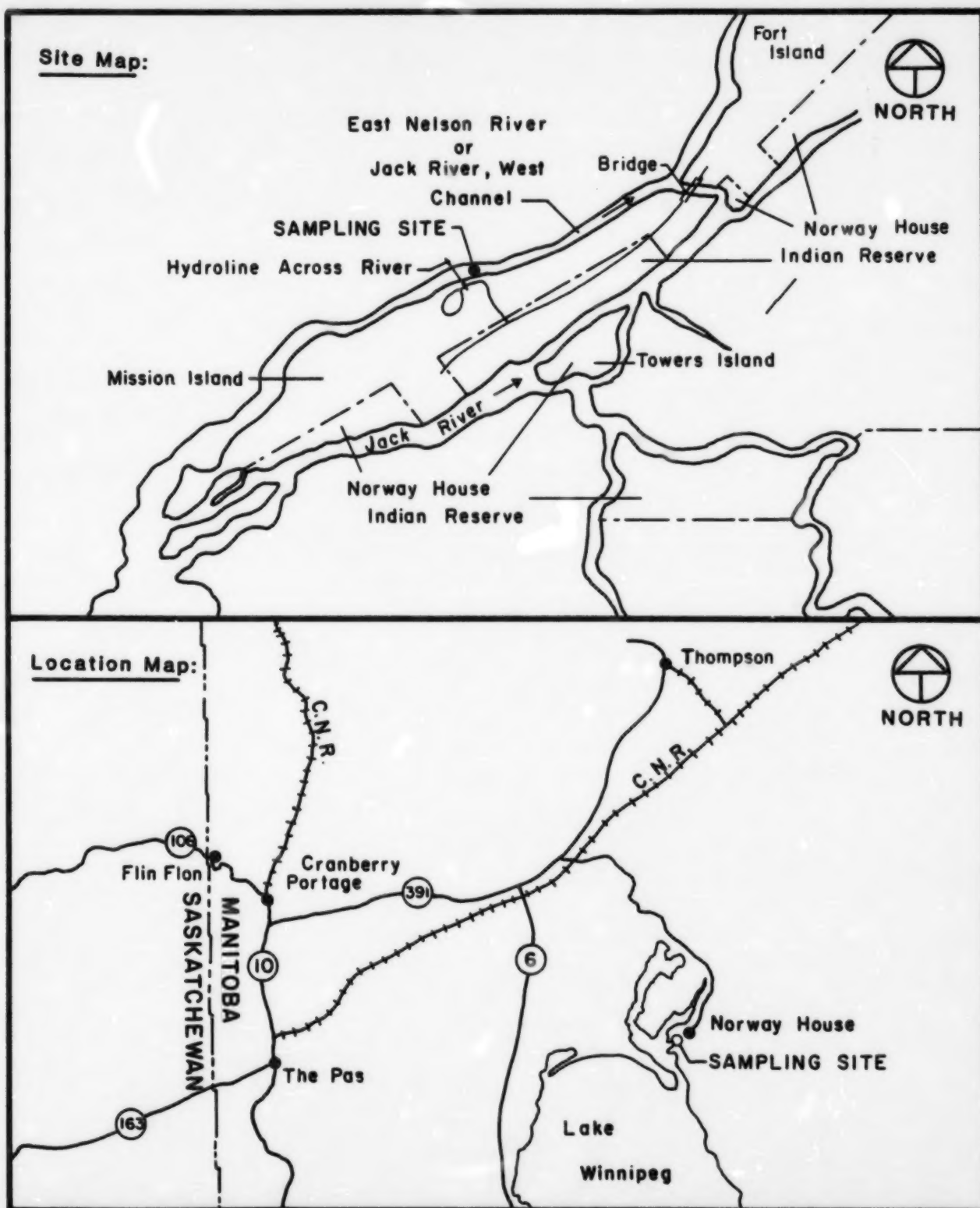
PREPARED OR REVISED BY: Val Chacko

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Jack River (West Channel) above Norway House, MANITOBA

NAQUADAT NUMBER: 00MA05UB0003



STATION PROFILE

STATION NAME: Jack River above Norway House (West Channel),
Manitoba

NAQUADAT NUMBER: 00MA05UB0013
PROJECT REFERENCE NUMBER: 318

WSC REFERENCE NUMBER:
SUBMITTER I.D.: 0418

LOCATION: Latitude: 53~ 56' 28" Longitude: 97~ 54' 20"

Access is by helicopter in winter, float plan during open-water period

STATION ESTABLISHED: Northern Flood Agreement (NFA) station

PERIOD OF RECORD: 1987-

Discontinued station 00MA05UB0011 (Nelson River at
Norway House) was sampled in 1972-74.

STATION TYPE: Sampled monthly in winter, and twice monthly in June,
July, August and September.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER	-				
SPRING	-				
SUMMER	-				
FALL	-				

ISSUES:

- Lake Winnipeg Regulation has occurred since mid 1970's.
Community of Norway House located nearby
-

REPORTS AVAILABLE FOR THIS SITE:

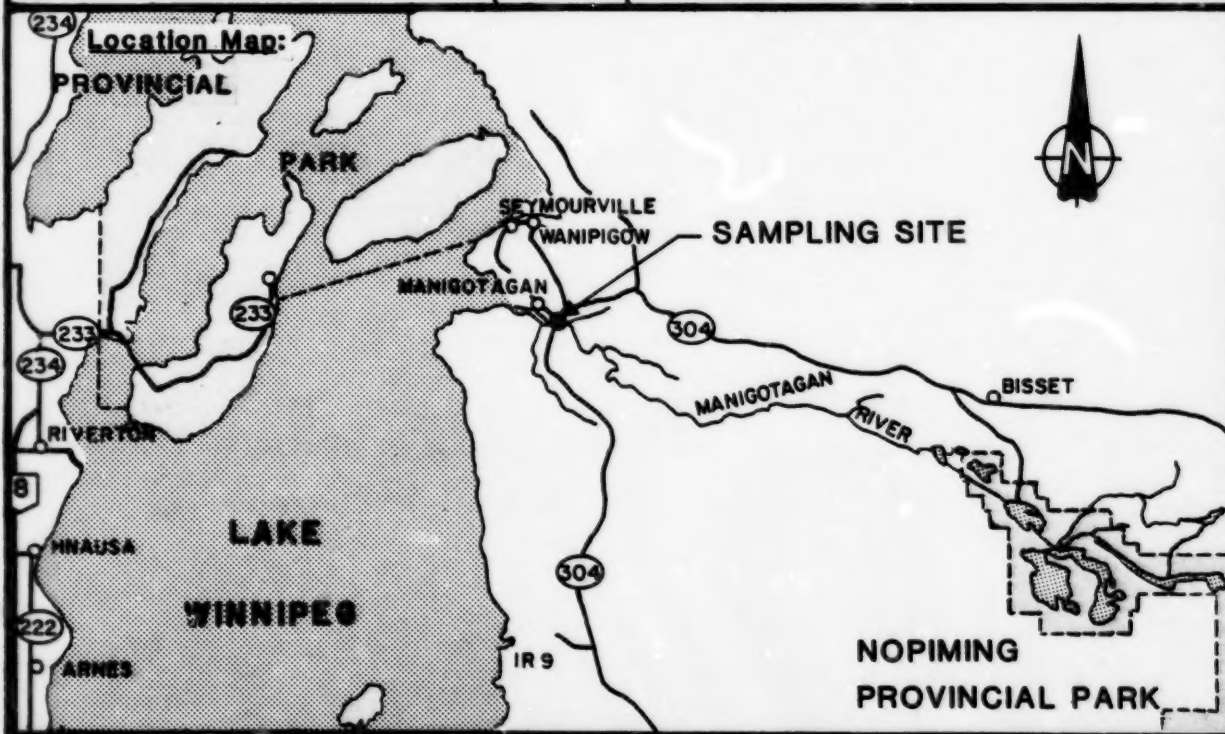
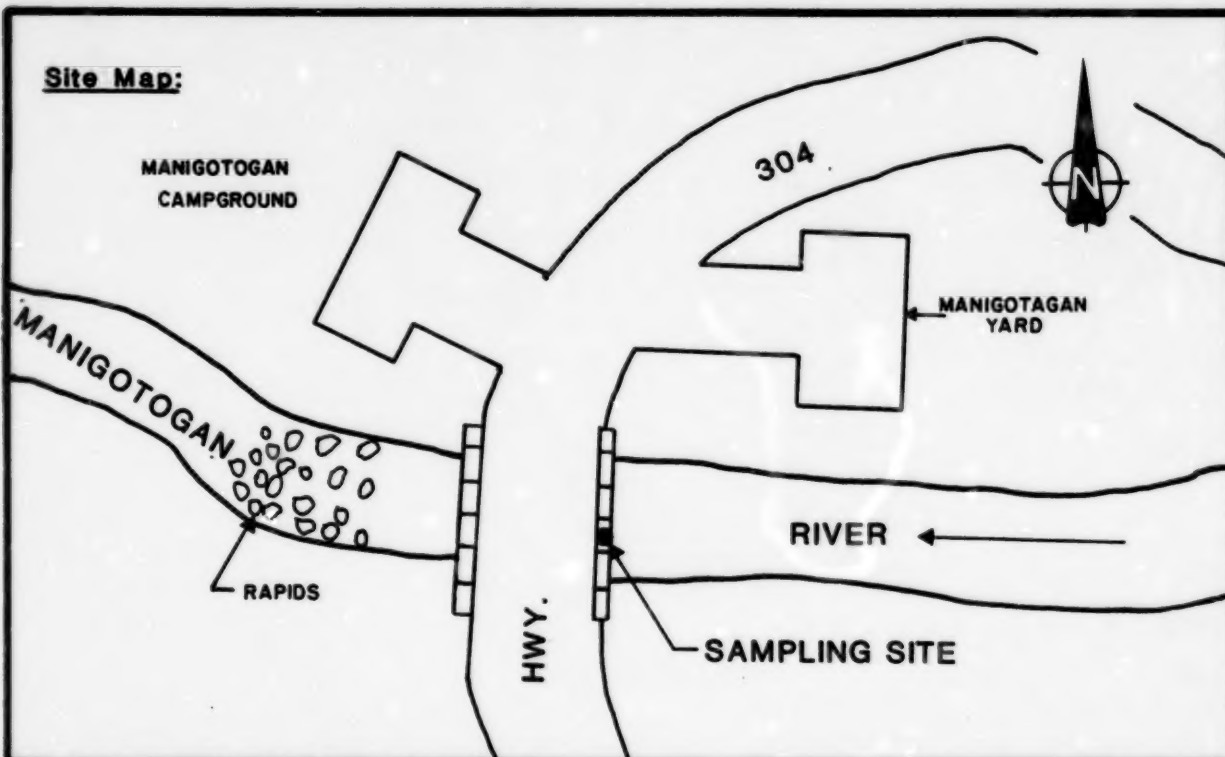
PREPARED BY: Lee Grapentine

DATE: July 31, 1988

STATION PROFILE SITE and LOCATION MAPS

Manigotogan River at HWY 304 bridge, MANITOBA

NAQUADAT NUMBER: 00MA05RA00004



 STATION PROFILE

STATION NAME: Manigotagan River at Highway 304 bridge, MANITOBA

NAQUADAT NUMBER: 00MA05RA0004
 PROJECT REFERENCE NUMBER: 304

WSC REFERENCE NUMBER: 05RA001
 SUBMITTER I.D.: 0003

 LOCATION: Latitude: 51~ 06' 00" Longitude: 96~ 17' 00"

Samples are collected from bridge on Highway #304.

Water is open through-out the year.

 STATION ESTABLISHED: July, 1969

PERIOD OF RECORD: 1969-

STATION TYPE: Monthly, major ions, nutrients, heavy metals.

A precambrian site is maintained in the south to
 detect long-term water quality trends.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	10-13	7-9	2-10	60-250	0-2
SPRING -	12-14	7-9	2-10	45-200	0-15
SUMMER -	8-12	7-9	2-10	45-150	10-25
FALL -	10-13	7-9	2-10	45-150	0-15

 WSC HYDROMETRIC STATION PERIOD OF RECORD: 1913-17, 1919-23, 1960-

SEDIMENT DATA: Not available

 ISSUES:

 REPORTS AVAILABLE FOR THIS SITE:

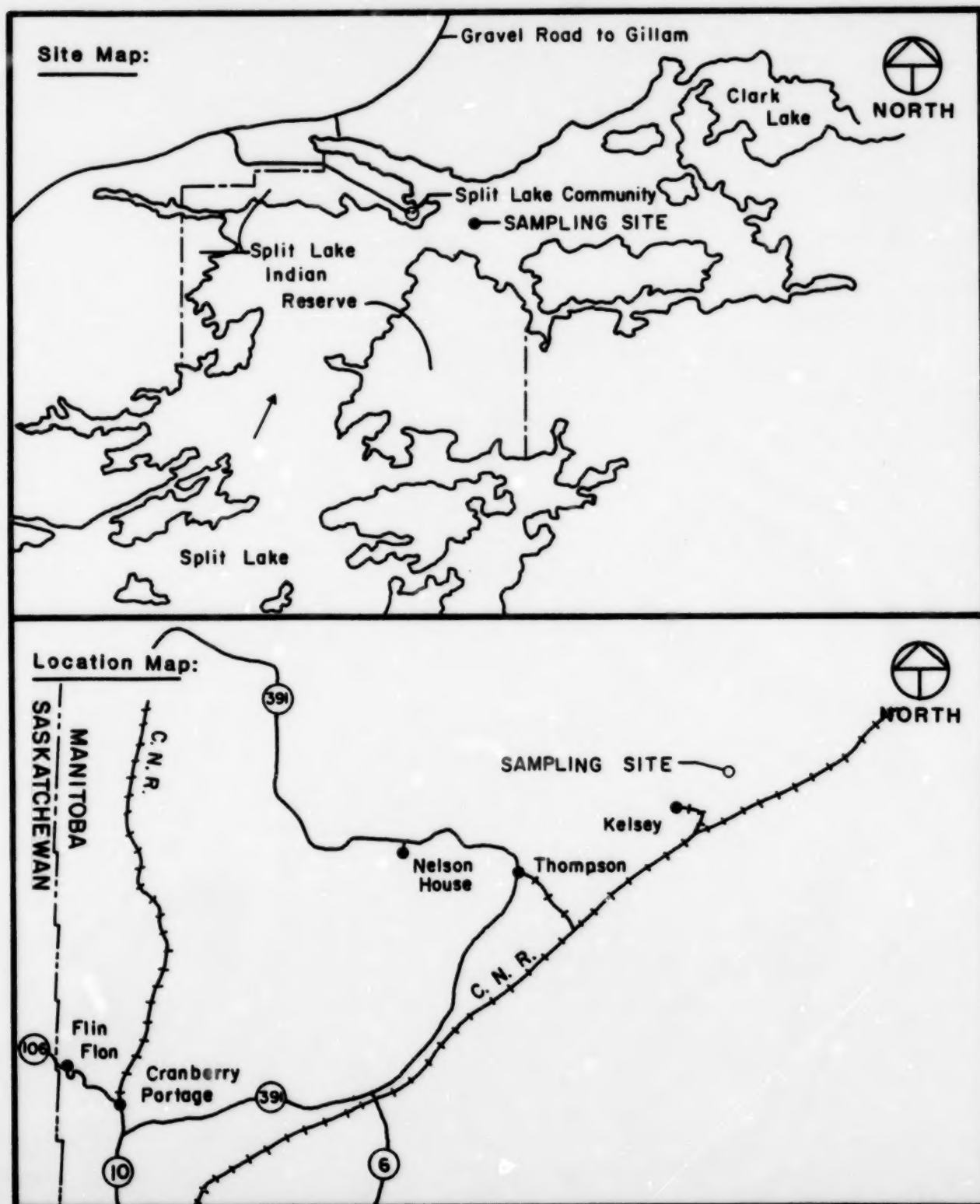
 PREPARED OR REVISED BY: Val Chacko

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Nelson River at outlet of Split Lake, MANITOBA

NAQUADAT NUMBER: 00MA05UF0003



STATION PROFILE

STATION NAME: Nelson River at Outlet of Split Lake, Manitoba

NAQUADAT NUMBER: 00MA05UF0003
PROJECT REFERENCE NUMBER: 318

WSC REFERENCE NUMBER:
SUBMITTER I.D.: 0418

LOCATION: Latitude: 56~ 14' 17" Longitude: 96~ 05' 00"

Access is by helicopter in winter, float plan during open-water period

STATION ESTABLISHED: Northern Flood Agreement (NFA) station

PERIOD OF RECORD: 1972-73, 1987-

Discontinued station 00MA05UE0001 (Nelson River at Kelsey) was sampled in 1965-69, 1970-78.

STATION TYPE: Sampled monthly in winter, and twice monthly in June, July, August and September.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -					
SPRING -					
SUMMER -					
FALL -					

ISSUES:

- Split Lake receives water from Churchill River Diversion and Lake Winnipeg Regulation. Community of Split Lake is located near outlet of Nelson River.
-

REPORTS AVAILABLE FOR THIS SITE:

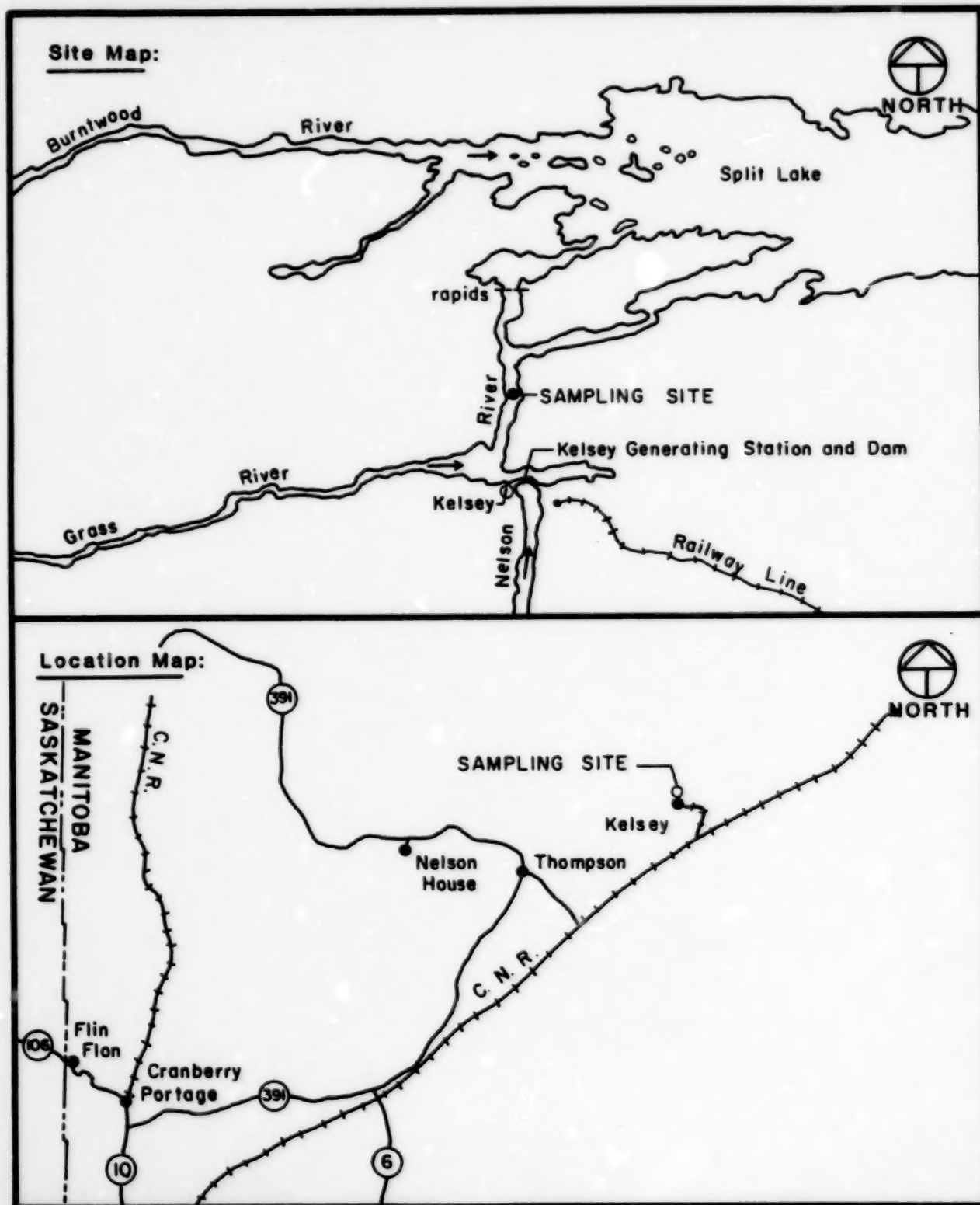
PREPARED BY: Lee Grapentine

DATE: July 31, 1988

STATION PROFILE SITE and LOCATION MAPS

Nelson River below confluence with Grass River, MANITOBA

NAQUADAT NUMBER: 00MA05UF0005



STATION PROFILE

STATION NAME: Nelson River below Confluence with Grass River,
Manitoba

NAQUADAT NUMBER: 00MA05UF0005
PROJECT REFERENCE NUMBER: 318

WSC REFERENCE NUMBER:
SUBMITTER I.D.: 0418

LOCATION: Latitude: 56~ 04' 00" Longitude: 96~ 32' 20"

Access is by helicopter in winter, float plan during open-water period

STATION ESTABLISHED: Northern Flood Agreement (NFA) station

PERIOD OF RECORD: 1987-

Discontinued station 00MA05UE0001 (Nelson River at
Kelsey) was sampled in 1965-69, 1970-78.

STATION TYPE: Sampled monthly in winter, and twice monthly in June,
July, August and September.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER	-				
SPRING	-				
SUMMER	-				
FALL	-				

ISSUES:

- Station is located below Kelsey and Jenpeg generating stations. Several drainage channels are at the outlet lakes of Lake Winnipeg. Lake Winnipeg Regulation has existed since the mid 1970's.
-

REPORTS AVAILABLE FOR THIS SITE:

PREPARED BY: Lee Grapentine

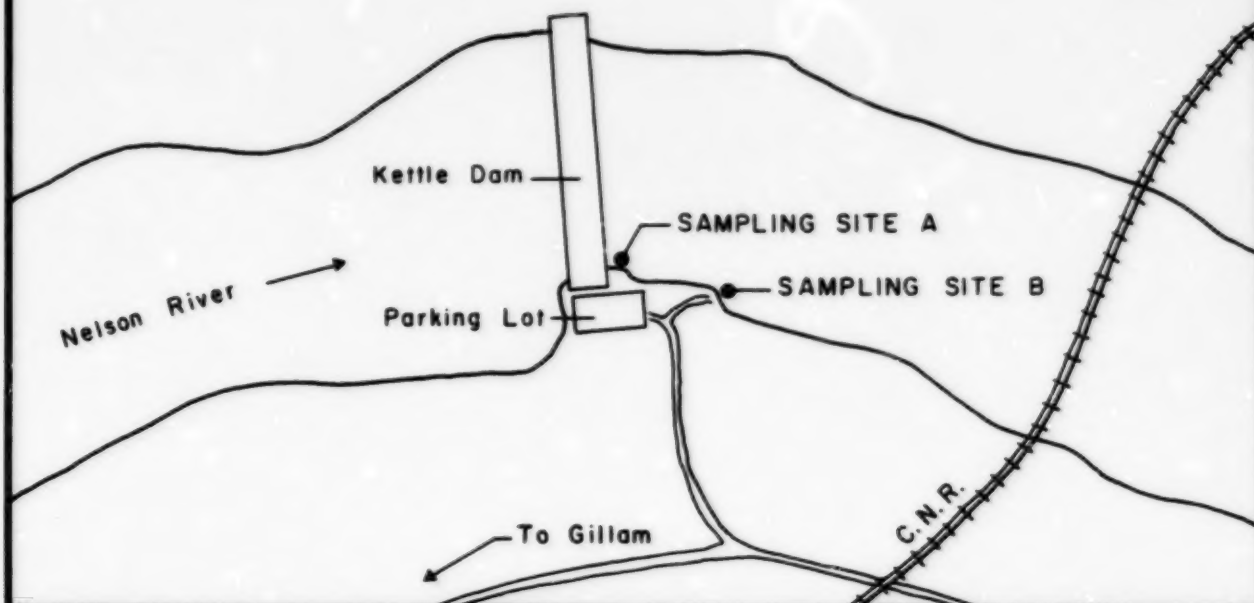
DATE: July 31, 1988

STATION PROFILE SITE and LOCATION MAPS

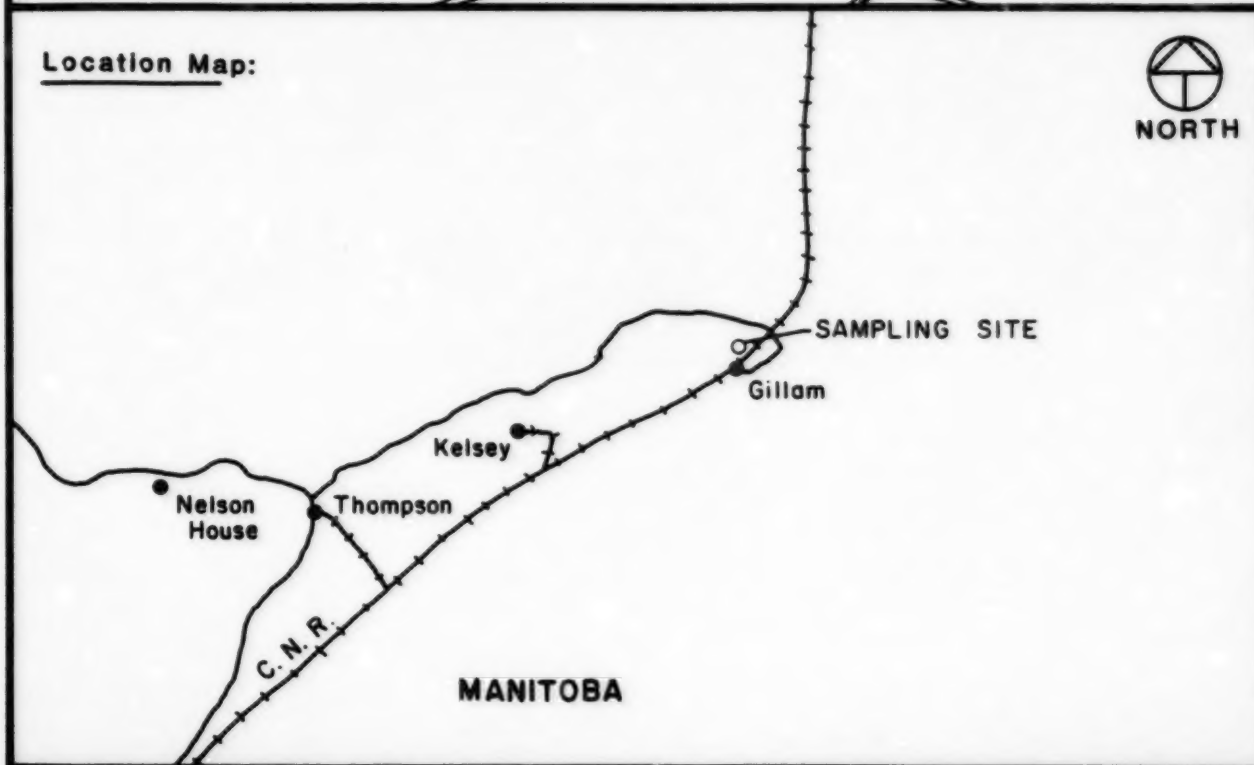
Nelson River below Kettle Generating Station, MANITOBA

NAQUADAT NUMBER: 00MA05UF0002

Site Map:



Location Map:



 STATION PROFILE

STATION NAME: Nelson River below Kettle Generating Stn., MANITOBA.

NAQUADAT NUMBER: 00MA05UF0002
 PROJECT REFERENCE NUMBER: 301

WSC REFERENCE NUMBER: -----
 SUBMITTER I.D.: 0001

LOCATION: Latitude: 56° 23' 34" Longitude: 94° 34' 53"

Accessable by road via Provincial Road 280 toward Gillam, then a short turnoff on the Kettle Dam Road approx. 13 km E of Gillam. Samples collected either from 5m or 150m below dam on the right side depending on ice and safety conditions. Site A - at base of dam on right bank approx 5 m below the outflow. This site has open water in winter. The banks are steep with many loose boulders. Site B - approx. 150 m below dam on right bank at the end of the boat launch trail. Requires ice auger to sample through ice in winter.

STATION ESTABLISHED: JULY, 1972

PERIOD OF RECORD: JULY, 1972 - MARCH, 1978; APRIL 1987-

STATION TYPE: Quarterly, collected by WSC. Physical parameters, major ions, nutrients, heavy metals (GEMS).

Parametric coverage of the site should be expanded based on the NFA water quality study recommendation.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -		7-8.5	1-10	100-300	0-2
SPRING -		7-8.5	3-25	50-250	0-10
SUMMER -		7-8.5	3-15	50-200	5-20
FALL -		7-8.5	3-15	50-200	0-10

ISSUES:

- Major hydro-electric power developments taking place.
- Data from this site required for the NFA water quality study.
- Site had been reinstated in 1987 after discontinuing the Nelson above Weir River site. The latter site had been discontinued because of the difficulties in obtaining a representative sample.

REPORTS AVAILABLE FOR THIS SITE:

- Lake Winnipeg, Churchill and Nelson R. Study Board Reports (1975)

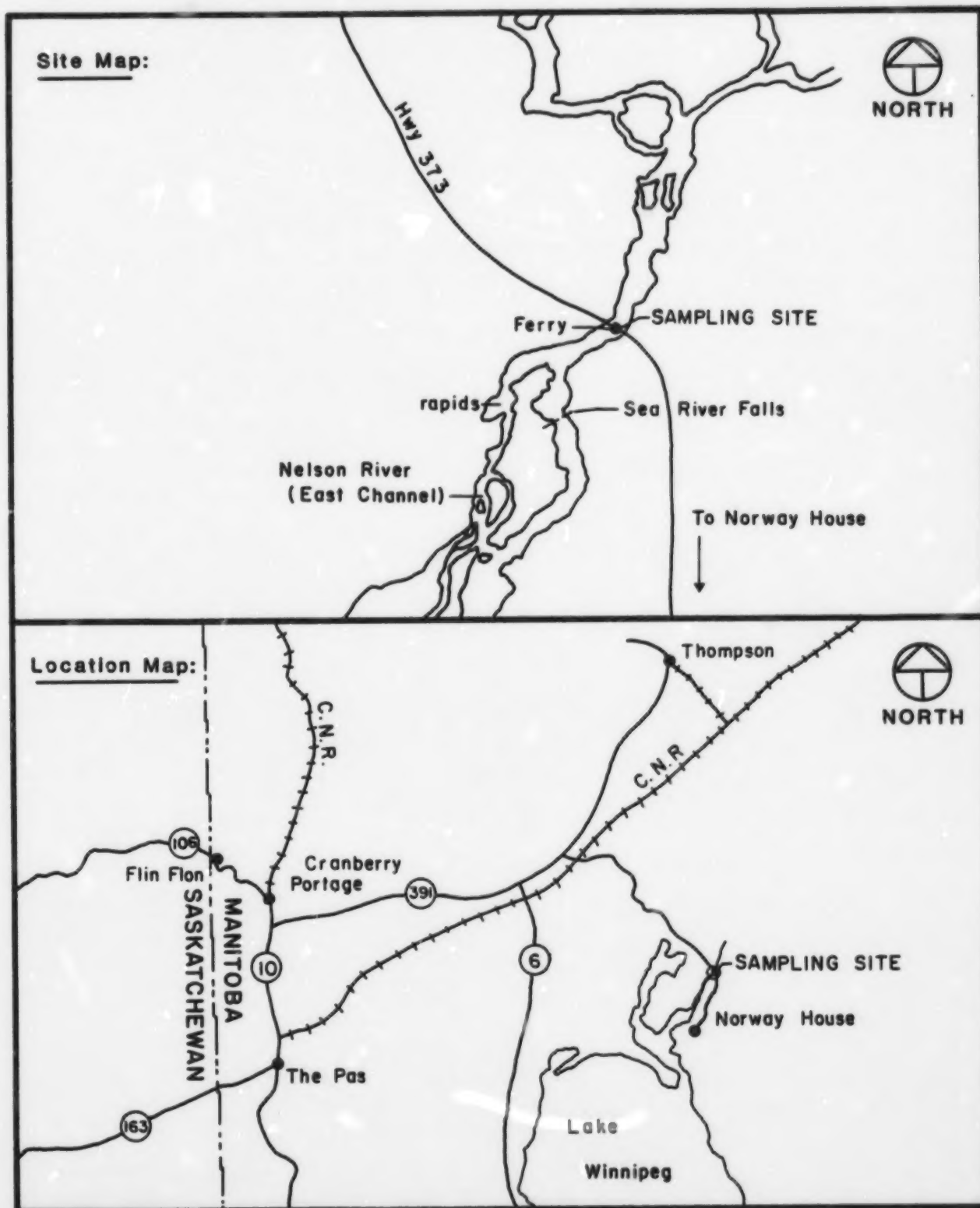
PREPARED OR REVISED BY: V. T. Chacko

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Nelson River below Sea River Falls, MANITOBA

NAQUADAT NUMBER: 00MA05UB0006



STATION PROFILE

STATION NAME: Nelson River below Sea River Falls, Manitoba

NAQUADAT NUMBER: 00MA05UB0006
PROJECT REFERENCE NUMBER: 318

WSC REFERENCE NUMBER:
SUBMITTER I.D.: 0418

LOCATION: Latitude: 54~ 14' 39" Longitude: 97~ 35' 26"

Access is by helicopter in winter, by road during the open-water period.

Samples collected from ferry at mid-stream.

STATION ESTABLISHED: Northern Flood Agreement (NFA) station

PERIOD OF RECORD: 1971-72, 1987-

STATION TYPE: Sampled monthly during the open water season.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER	-				
SPRING	-				
SUMMER	-				
FALL	-				

ISSUES:

- Lake Winnipeg Regulation has occurred since mid 1970's.

REPORTS AVAILABLE FOR THIS SITE:

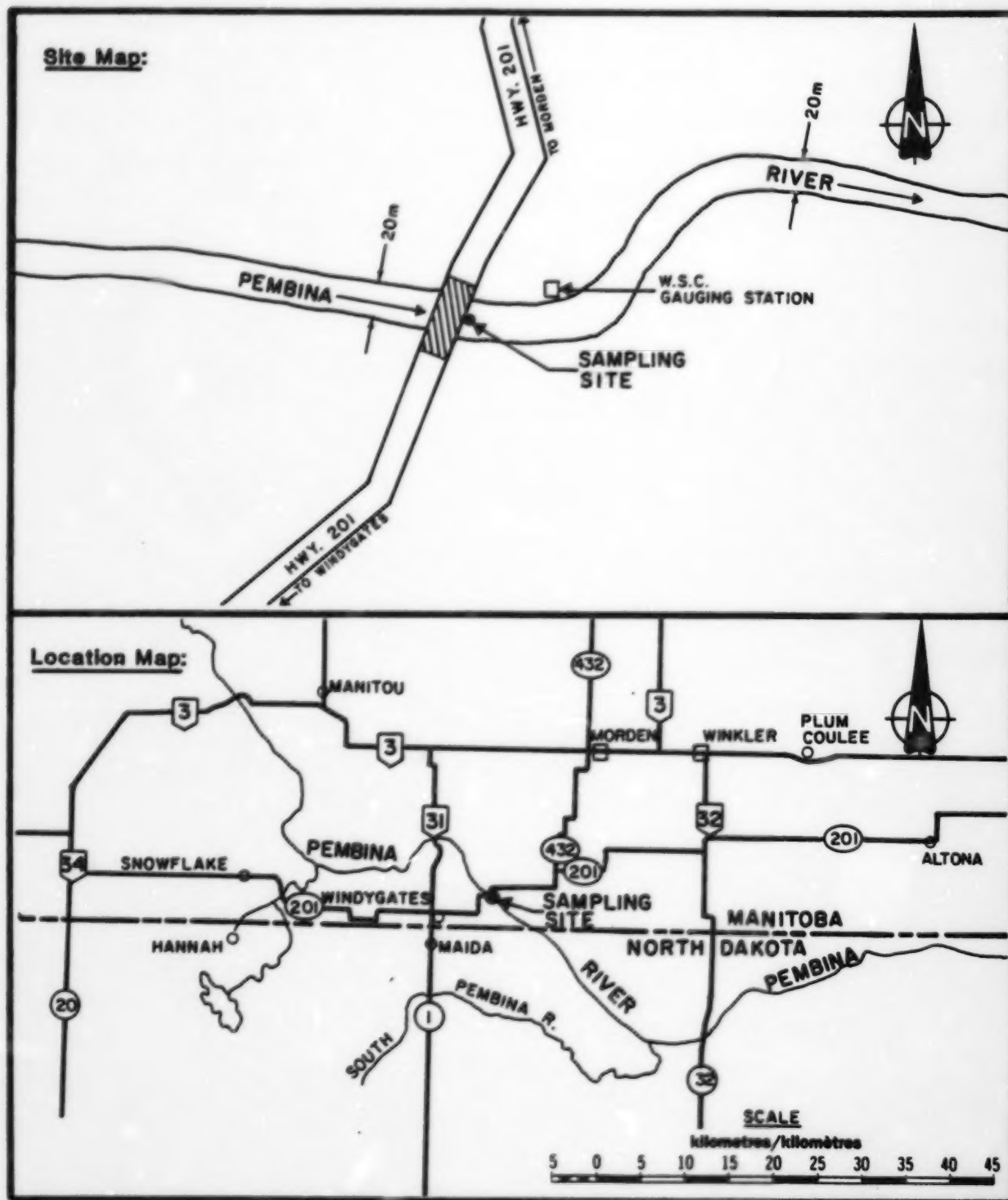
PREPARED BY: Lee Grapentine

DATE: July 31, 1988

STATION PROFILE SITE and LOCATION MAPS

Pembina River at Windygates, MANITOBA

NAQUADAT NUMBER: 00MA050B0001



 STATION PROFILE

STATION NAME: Pembina River at Windygates, MANITOBA

NAQUADAT NUMBER: 00MA05OB0001
 PROJECT REFERENCE NUMBER: 304

WSC REFERENCE NUMBER: 05OB007
 SUBMITTER I.D.: 0003

LOCATION: Latitude: 49° 02' 00" Longitude: 98° 16' 30"

Samples are collected from the bridge on Highway #201.

The site is located in a deep valley and roads may be slippery during winter periods.

STATION ESTABLISHED: May, 1960

PERIOD OF RECORD: 1960-

STATION TYPE: Monthly, major ions, nutrients, heavy metals, biocides

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	0-10	7-9	1-50	700-1300	0-2
SPRING -	2-12	7-9	5-400	200-1000	0-15
SUMMER -	7-12	7-10	1-100	200-900	10-25
FALL -	7-13	7-10	1-100	500-1200	0-20

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1962-

SEDIMENT DATA: 1962-

ISSUES:

- Municipal waste and biocides are major concerns.
- PCB's have been detected in the past.

REPORTS AVAILABLE FOR THIS SITE:

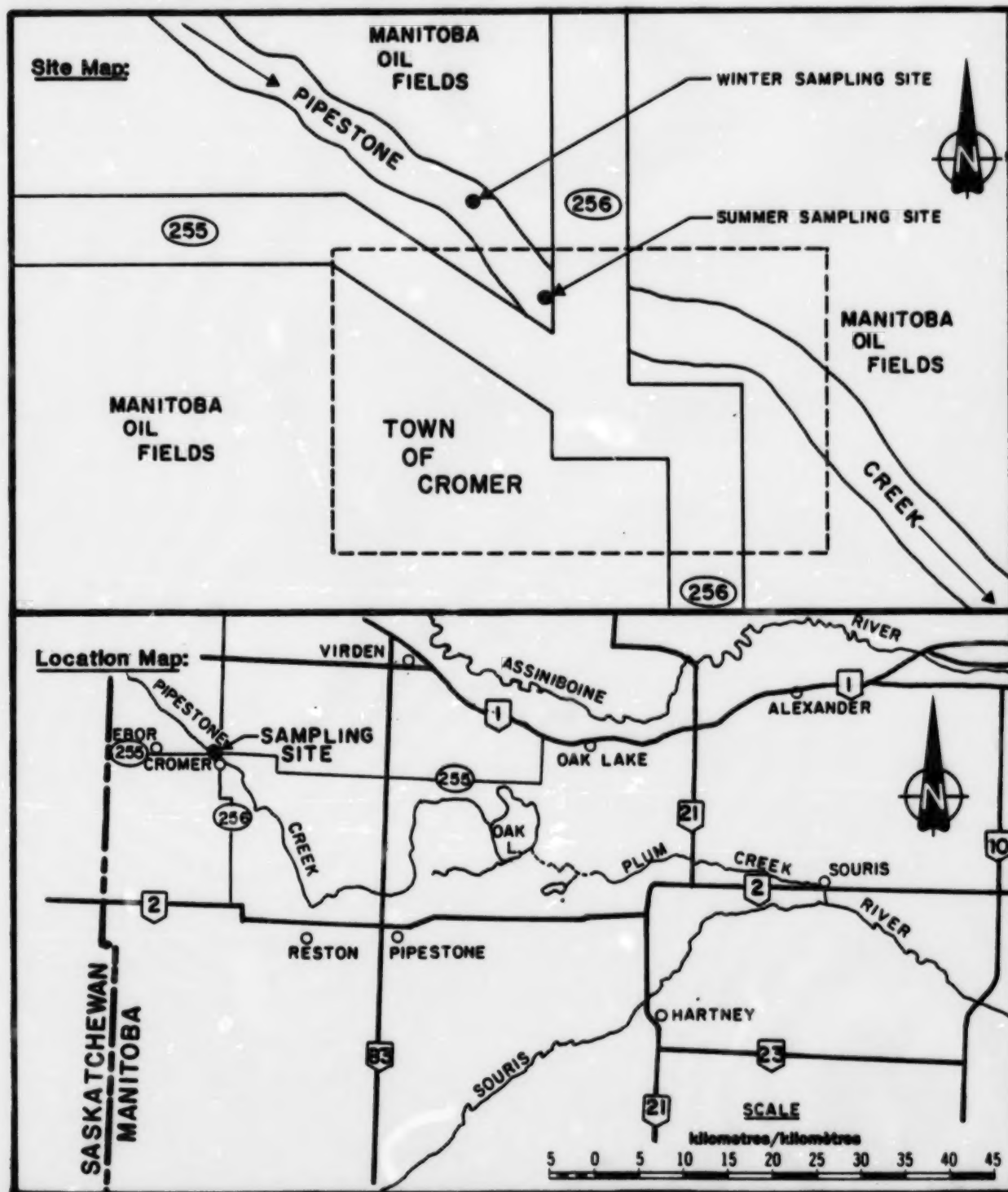
PREPARED OR REVISED BY: Val Chacko

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Pipestone Creek 0.4 km from Cromer on Hwy. 255, MANITOBA

NAQUADAT NUMBER: 00MA05NG0013



STATION PROFILE

STATION NAME: Pipestone Creek 0.4km from Cromer on Highway #255,
MANITOBA

NAQUADAT NUMBER: 00MA05NG0013
PROJECT REFERENCE NUMBER: 304

WSC REFERENCE NUMBER: -----
SUBMITTER I.D.: 0003

LOCATION: Latitude: 49° 44' 18" Longitude: 101° 14' 09"

During open water, samples are collected from the bridge on Highway #256.

During the winter, samples are collected 35 metres upstream, near the dam. No drilling is required.

STATION ESTABLISHED: August, 1974

PERIOD OF RECORD: 1974-

STATION TYPE: Monthly, major ions, nutrients, heavy metal, biocides.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	2-9	7-9	2-30	400-1200	0-5
SPRING -	3-11	7-8	15-50	100-800	0-20
SUMMER -	5-10	7-9	15-50	200-800	10-25
FALL -	5-12	7-9	10-40	200-800	0-20

ISSUES:

- Major issues are nutrients and biocides. Pipestone Creek discharges into Oak Lake which is at an eutrophic state. There is a considerable amount of pressure from cottage owners to limit or stop the nutrient discharge into the lake.

REPORTS AVAILABLE FOR THIS SITE:

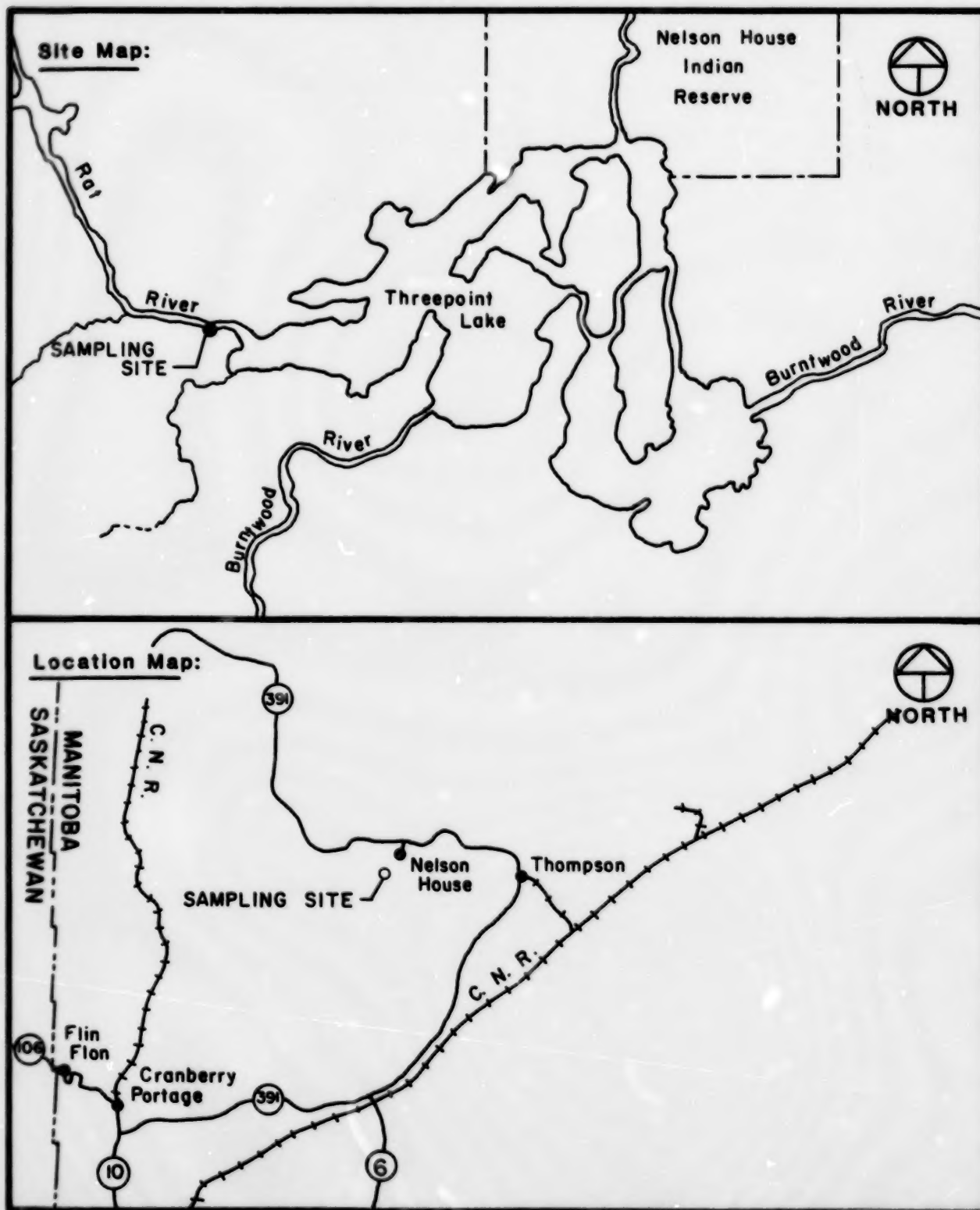
PREPARED OR REVISED BY: Val Chacko

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Rat River above Threepoint Lake, MANITOBA

NAQUADAT NUMBER: 00MA05TF0001



STATION PROFILE

STATION NAME: Rat River above Threepoint Lake, MANITOBA

NAQUADAT NUMBER: 00MA05TF0001
PROJECT REFERENCE NUMBER: 318

WSC REFERENCE NUMBER:
SUBMITTER I.D.: 0418

LOCATION: Latitude: 55~ 41' 59" Longitude: 99~ 04' 59"

Access is by helicopter in winter, float plane or boat in open water season.

STATION ESTABLISHED: Northern Flood Agreement (NFA) station

PERIOD OF RECORD: 1971-74, 1987-

STATION TYPE: Sampled monthly in winter (Jan-Mar), and twice monthly in June, July, August and September.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER	-				
SPRING	-				
SUMMER	-				
FALL	-				

ISSUES:

- Station is directly on Churchill River diversion route to Nelson River (since 1976)

REPORTS AVAILABLE FOR THIS SITE:

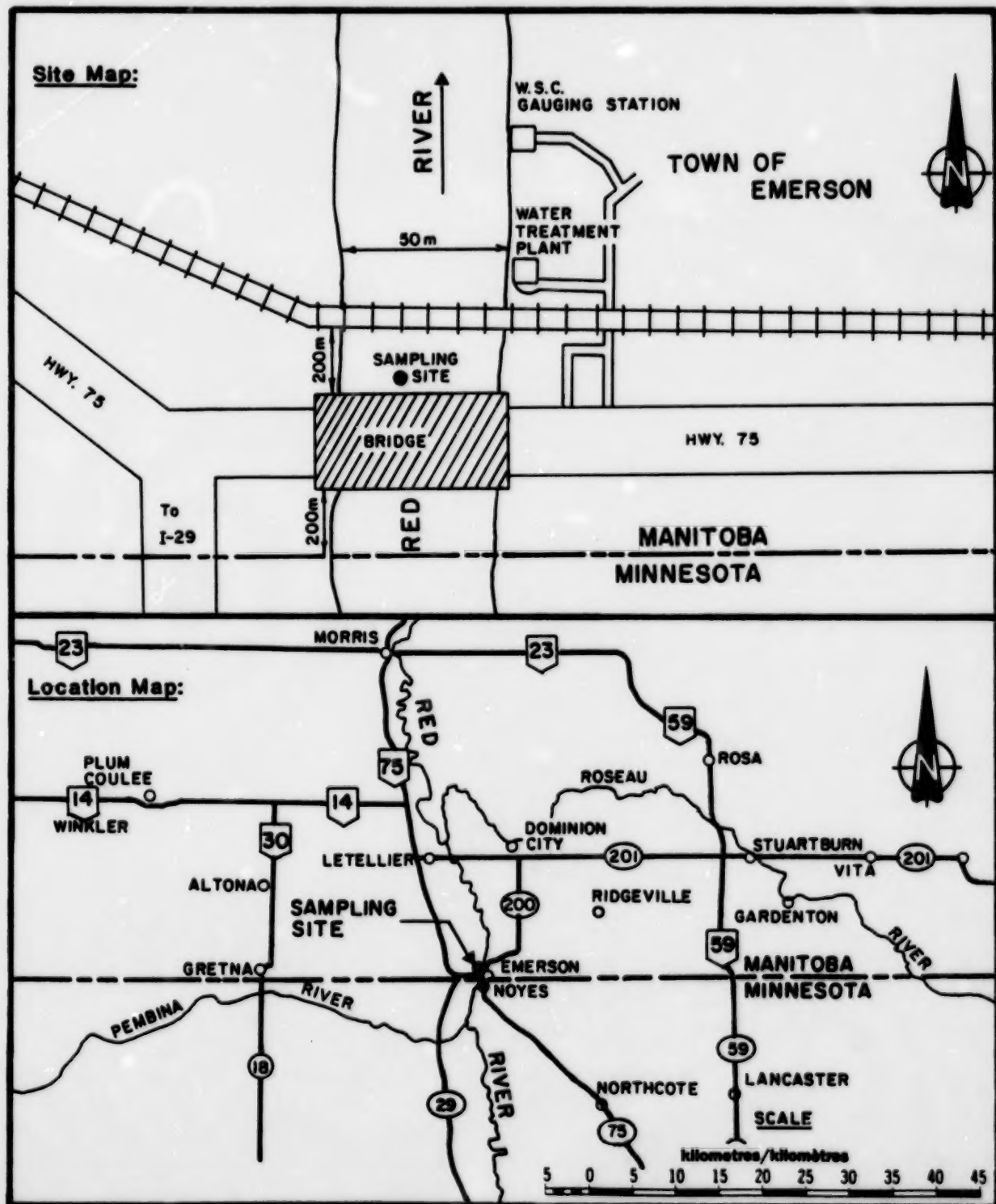
PREPARED BY: Lee Grapentine

DATE: July 31, 1988

STATION PROFILE SITE and LOCATION MAPS

Red River at Emerson, MANITOBA

NAQUADAT NUMBER: 00MA05000001



 STATION PROFILE

STATION NAME: Red River at Emerson, MANITOBA

NAQUADAT NUMBER: 00MA05OC0001
 PROJECT REFERENCE NUMBER: 306

WSC REFERENCE NUMBER: 05OC003
 SUBMITTER I.D.: 0003

LOCATION: Latitude: 49° 00' 30" Longitude: 97° 12' 40"

Samples collected from bridge on HWY 75. During the winter, samples collected downstream near the railway bridge (water usually open).

STATION ESTABLISHED: May, 1960

PERIOD OF RECORD: 1960-

STATION TYPE: Monthly and continuous monitoring, major ions, nutrients, heavy metals, biocides, radionuclides, GEM

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	10-14	7-8.5	1-50	300-1500	0-3
SPRING -	7-11	7-8.5	1-800	300-1200	1-20
SUMMER -	5-9	7-8.5	1-1000	300-1200	10-25
FALL -	7-13	7-9.0	2-500	200-1500	1-20

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1912-

SEDIMENT DATA: 1956, 1961, 1978-

ISSUES:

- Revised Garrison scheme now under active consideration. This may have an adverse effect on the Red River quality.
- Municipal & industrial spills of major concern. Recently frequency of industrial spills (sugar beet) has decreased.
- Low DO, nutrients, herbicides, cyanides, chlorides, heavy metals, etc. are of concern in the Red River.
- The originally proposed nuclear waste repositories in this basin are no longer under active consideration.

REPORTS AVAILABLE FOR THIS SITE:

- Reports on nutrients, 2,4,-D, sugar beet plant waste spills, Red River Pollution Annual Reports, etc.
- Report on 1971-84 automated water quality monitoring at Emerson.
- Water quality classification by the province of Manitoba.

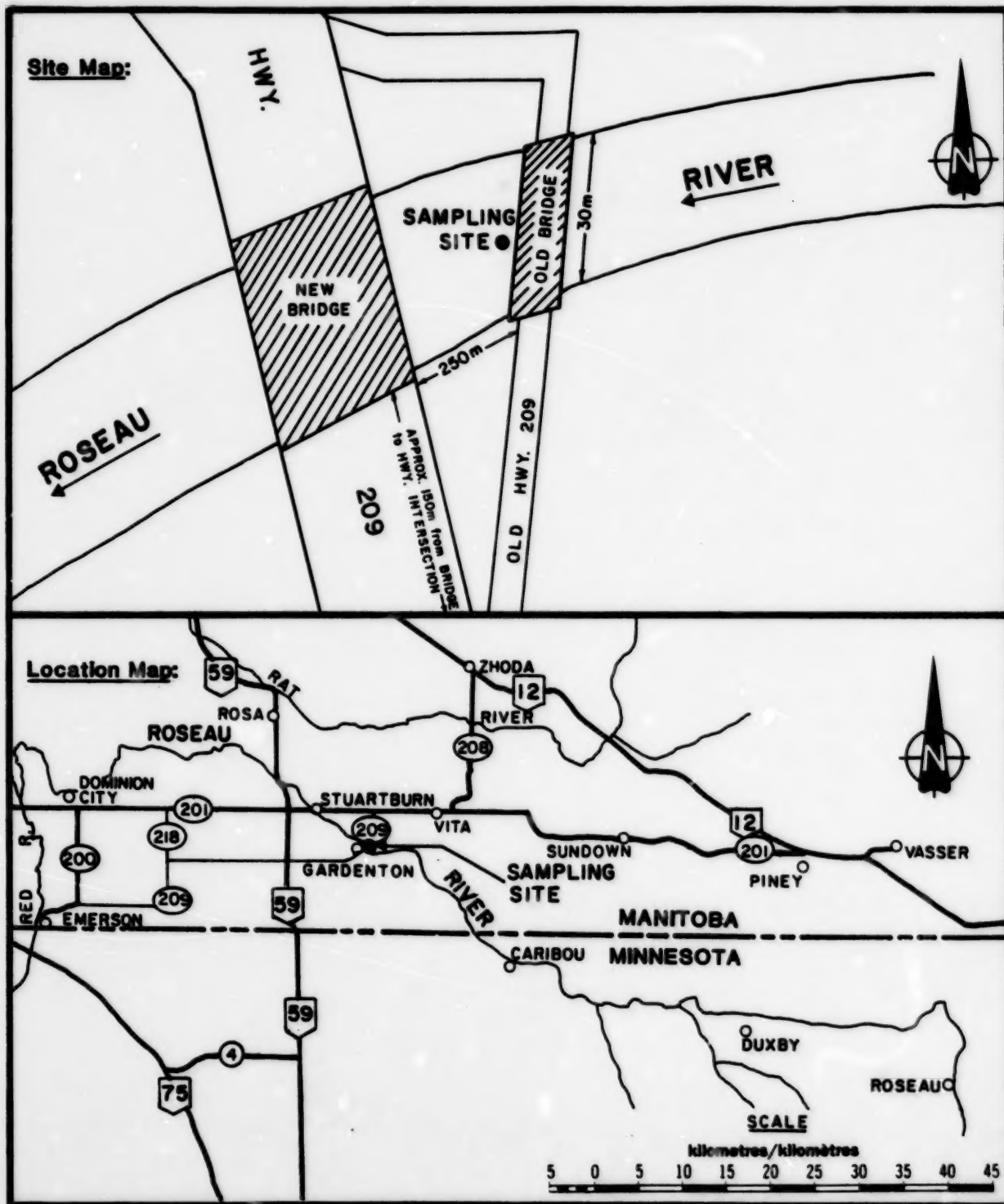
PREPARED OR REVISED BY: Val Chacko

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Roseau River at Gardenton, MANITOBA

NAQUADAT NUMBER: 00MA05OD0001



STATION PROFILE

STATION NAME: Roseau River at Gardenton, MANITOBA

NAQUADAT NUMBER: 00MA05OD0001
PROJECT REFERENCE NUMBER: 304

WSC REFERENCE NUMBER: 05OD004
SUBMITTER I.D.: 0003

LOCATION: Latitude: 49~ 05' 16" Longitude: 96~ 41' 15"

Samples are collected from old bridge on Highway #209.
During the winter, samples are collected down stream of the bridge.

STATION ESTABLISHED: August, 1960

PERIOD OF RECORD: 1960-

STATION TYPE: Monthly, major ions, nutrients, heavy metals, biocides.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	1-9	7-9	0.5-50	400-1200	0-2
SPRING -	2-10	7-9	1-50	200-1000	0-20
SUMMER -	5-11	7-9	1-50	250-900	10-25
FALL -	7-14	7-9	1-50	250-900	0-20

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1915-23, 1926-31, 1962-

SEDIMENT DATA: 1972-

ISSUES:

- Municipal waste and proposed channel improvements in Minnesota are causes of concern.
- Herbicide Silvex was detected on several occasions during the late seventies and early eighties.
- The originally proposed nuclear waste repositories in this basin are no longer under active consideration.

REPORTS AVAILABLE FOR THIS SITE:

- Report to the IJC (1975) by the International Roseau River Engineering Board.
- Preliminary Impact Assessment of the proposed water management plans on the Roseau River Reserve (1976).

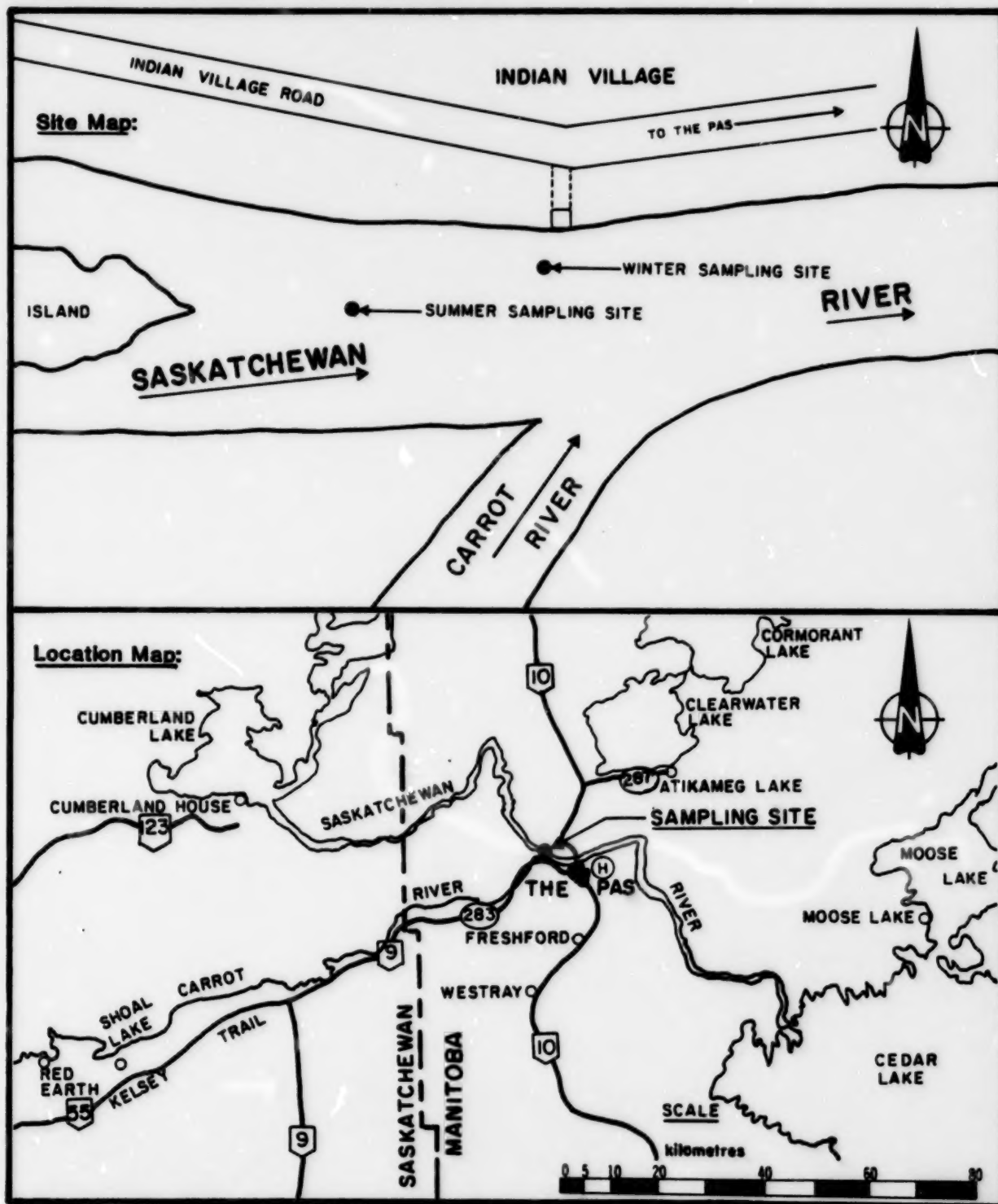
PREPARED BY: Val Chacko

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Saskatchewan River above Carrot River, MANITOBA

NAQUADAT NUMBER: 00MA05KH0001



 STATION PROFILE

STATION NAME: Saskatchewan River above Carrot River, MANITOBA

NAQUADAT NUMBER: 00MA05KH0001

WSC REFERENCE NUMBER: -----

PROJECT REFERENCE NUMBER: 315

SUBMITTER I.D.: 0462

LOCATION: Latitude: 53~ 50' 30" Longitude: 101~ 20' 06"

During open water conditions, samples are collected by boat, midstream above the confluence with the Carrot River. The boat may be obtained from W.S.C, The Pas (204) 623-2232.

During winter conditions, samples are collected 30m from the boat launch at the Indian Reserve.

Unsafe slushy conditions may exist during April and November.

STATION ESTABLISHED: May, 1974

PERIOD OF RECORD: 1974-

STATION TYPE: Monthly (PPWB), Major ions, nutrients, heavy metals, biocides, radionuclides, GEM site.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	8-13	7-8	1-15	300-500	0-2
SPRING -	10-13	7-9	5-50	250-450	2-15
SUMMER -	7-10	7-9	10-50	250-450	15-22
FALL -	8-11	7-9	10-50	200-400	2-15

ISSUES:

- The town of The Pas obtains its domestic water supply from this river and therefore the water quality of this river is a topic of frequent media coverage.
- Color, turbidity and herbicides are the major concerns.

REPORTS AVAILABLE FOR THIS SITE:

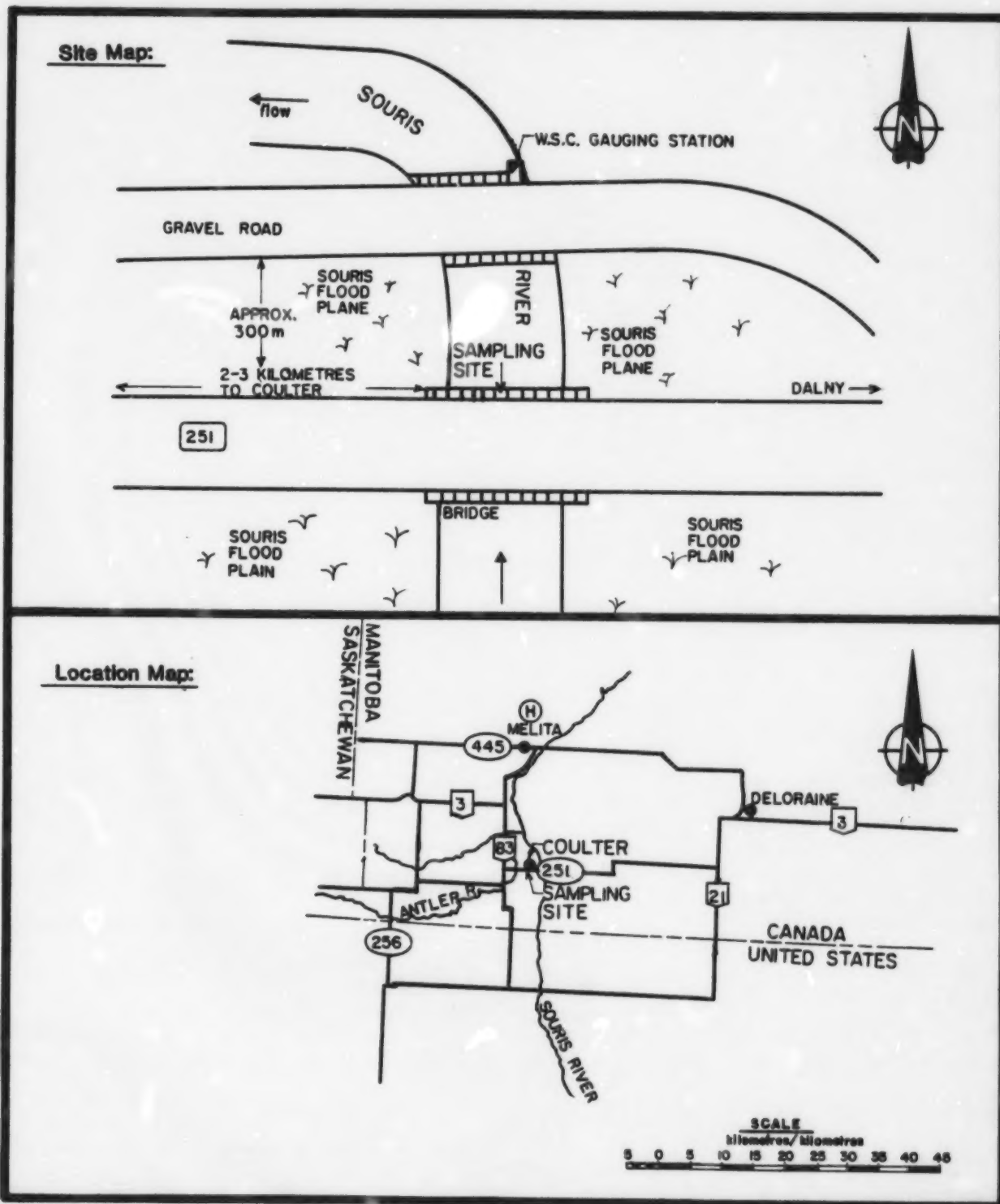
PREPARED OR REVISED BY: Val Chacko

DATE: March 31, 1987

STATION PROFILE SITE and LOCATION MAPS

Souris River at Coulter

NAQUADAT NUMBER: 00MA05NF0001



 STATION PROFILE

STATION NAME: Souris River at Coulter

NAQUADAT NUMBER: 00MA05NF0001
 PROJECT REFERENCE NUMBER: 313-88

WSC REFERENCE NUMBER: 05NF016
 SUBMITTER I.D.: 0003

LOCATION: Latitude: 49° 05' 30" Longitude: 100° 56' 50"

Sampling at bridge on HWY 251 approx. 2.5km E of Coulter. During open water, samples collected from bridge on HWY 251. During winter conditions, samples are collected from down stream of the bridge.

STATION ESTABLISHED: May, 1960

PERIOD OF RECORD: 1960 - Ongoing

STATION TYPE: Monthly, major ions, nutrients, heavy metals, biocides, radionuclides. Continuous nutrient data 1978-82

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	0-14	6-9	1-50	800-2500	0-5
SPRING -	0-14	6-9	1-80	100-1500	0-20
SUMMER -	0-14	7-10	1-80	300-1500	10-25
FALL -	3-14	7-10	1-80	300-200	0-20

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1977-
 SEDIMENT DATA: 1977-

ISSUES:

- Garrison had been an issue, but current developments have more of an effect on the Red. The Treen Congressional Commission recommendations (1984), say no development to take place that would affect the water quality of the Souris River.
- Municipal sewage spills have occurred on the U.S. side and are a concern to the Town of Souris and Portage La Prairie which use the water as a raw domestic water supply. An agreement exists between Canada and Manitoba to monitor the Souris River at Coulter within 6 hours after notification of a sewage spill.
- Low DO and ammonia are major issues.

REPORTS AVAILABLE FOR THIS SITE: Reports on nutrients; water quality classification by the Prov. of Man.; Souris R. Basin Study Report; Automatic water quality monitor report; IJC report on the Garrison Diversion.

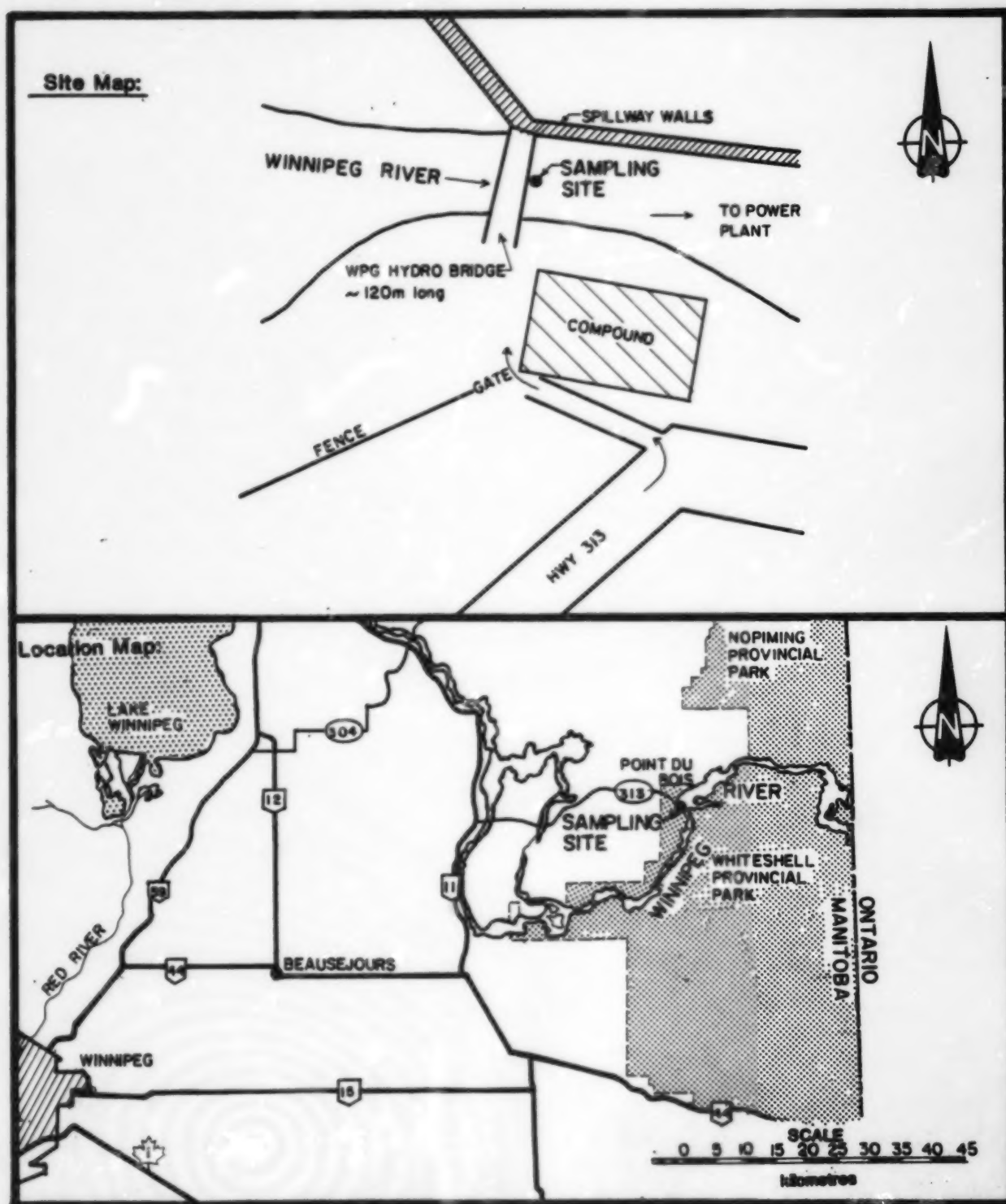
PREPARED OR REVISED BY: P. W. Neil

DATE: July 7, 1988

STATION PROFILE SITE and LOCATION MAPS

Winnipeg River at Pointe du Bois, MANITOBA

NAQUADAT NUMBER: 00MA05PF0022



STATION PROFILE

STATION NAME: Winnipeg River at Pointe Du Bois, MANITOBA

NAQUADAT NUMBER: 00MA05PF0022
PROJECT REFERENCE NUMBER: 304

WSC REFERENCE NUMBER: 05PF001
SUBMITTER I.D.: 0003

LOCATION: Latitude: 50~ 18' 03" Longitude: 95~ 33' 21"

Samples are collected from the Winnipeg Hydro Service bridge.

Water is open through-out the year.

STATION ESTABLISHED: July, 1972

PERIOD OF RECORD: 1972-

STATION TYPE: Monthly, major ions, nutrients, heavy metals, biocides.

EXPECTED FIELD OBSERVATIONS:

	DO	pH	TURBIDITY	SPECIFIC COND.	TEMP.
WINTER -	10-14	7-9	2-10	80-120	0-4
SPRING -	10-13	7-9	2-10	80-100	0-10
SUMMER -	8-12	7-9	2-10	80-100	5-24
FALL -	10-13	7-9	2-10	80-100	0-10

WSC HYDROMETRIC STATION PERIOD OF RECORD: 1909-20, 1927-

SEDIMENT DATA: Not available

ISSUES:

- Mercury had been a major issue in the English-Wabigoon River system, a tributary of the Winnipeg River.
 - The Winnipeg River is a major source of nutrient input to Lake Winnipeg
-

REPORTS AVAILABLE FOR THIS SITE:

- Mercury in the English-Wabigoon River System (1980)
-

PREPARED OR REVISED BY: Val Chacko

DATE: March 31, 1987

APPENDICES

DISCONTINUED

WATER QUALITY SITES

Appendices A to C are a listing of locations where water quality data has been obtained by the Water Quality Branch. Locations are listed alphabetically within each province, and include the period of record available. The amount of data available for a particular location will vary substantially dependent upon the original purpose of the site. To obtain this historical water quality data, contact one of the District Resource Officers listed at the beginning of each provincial section.



APPENDIX A

DISCONTINUED WATER QUALITY SAMPLING SITES

ALBERTA

Alderson Lake, Waterton Lakes National Park	1971
Amethyst lake, Jasper National Park	1972
Athabasca River 1.35 Miles above Confluence with Sunwapta R., Jasper National Park	1972-76
Athabasca River about 0.5 Mile above Henry House, Jasper National Park	1972-76
Athabasca River about 2.05 Miles below Devona, Jasper National Park	1972-76
Athabasca River about 4.5 Miles below Confluence with Sunwapta River, Jasper National Park	1972-76
Athabasca River above Jasper	1971-77
Athabasca River above Pelican River	1969
Athabasca River approx. 1.5 Miles below Firebag River	1969
Athabasca River approx. 9 Miles above Embarras Portage	1969
Athabasca River at Athabasca	1960-87
Athabasca River at Entrance	1969-71
Athabasca River at Fort Mackay	1974-78
Athabasca River at Fort McMurray	1967-78
Athabasca River at Fort Point Bridge, Jasper Nat. Park	1976
Athabasca River at Hinton	1976-74
Athabasca River at Hwy 18, near Fort Assiniboine	1971-74
Athabasca River at Hwy 93A about 3.8 Miles above mouth of Astoria River, Jasper National Park	1973-76
Athabasca River at Hwy Bridge about 2 Miles below Japser, Jasper National Park	1972-76
Athabasca River at Smith	1971
Athabasca River at Whitecourt	1966-74
Athabasca River near Hondo	1969-74
Athabasca River West Bank Immediately in Front of the Alpine Village about 2 Miles South of Jasper	1969
Baker Creek below Railway Trestle at the Mouth, Banff National Park	1975-76
Baker Creek near Mouth at Hwy 1A Bridge, Banff Nat. Park	1972-76
Bath Creek near the Mouth, Banff National Park	1975-76

Battle River at Ponoka	1960-74
Battle River near Alliance	1971-74
Battle River near Marsden	1971-74
Bauerman Brook above Confluence with Blakiston Brook, Waterton National Park	1973-76
Bear River South of Fort Vermilion	1971-73
Beaver Creek above Maligne Lake Road Crossing, Jasper National Park	1976
Beaver Creek North of Brocket	1971-73
Belly R. above Confluence of North Fork of Belly River, Waterton National Park	1974-76
Belly River at Hwy 2, Stand Off	1971-74
Belly River at Hwy 5 near Mountain View	1964-76
Belly River at North Boundary, Waterton Lakes Nat. Park	1973-76
Belly River - St. Mary Diversion Canal	1971-73
Bench Mark Creek near Fort Smith	1970-83
Berry Creek near Mouth	1971-74
Bighorn Lake	1972
Birch River below Alice Creek	1969-78
Blakiston Brook above Confluence with Bauerman Brook, Waterton National Park	1973-76
Blakiston Brook above Canyon Church Camp, Waterton Park	1973-76
Blakiston Brook at Hwy 5, Waterton Lakes National Park	1972-76
Blindman River near Blackfalds	1966-74
Blood Indian Creek near the Mouth	1971-73
Bow Lake, Banff National Park	1972
Bow River above Bassano Dam	1967-74
Bow River above Moraine Creek, Banff National Park	1975-76
Bow River at 85th Street Bridge, Calgary	1969
Bow River at Banff	1964-74
Bow River at Bearspaw Dam	1967-74
Bow River at Brewster Creek	1971
Bow River at Cochrane	1971-87
Bow River at C.P.R. Bridge E of St. Georges I., Calgary	1969
Bow River at Crowfoot Ferry	1973-74
Bow River at Cusing Bridge, Calgary	1969
Bow River at Edmonton Trail Bridge, Calgary	1966
Bow River at Eisehnower Junction, Banff National Park	1973-76
Bow River at Graves Bridge	1971-74
Bow River at Hwy 1 above Banff, Banff National Park	1972-76
Bow River at Hwy 1 below Johnston Creek, Banff Nat. Park	1973-76

Bow River at Hwy 36, Scandia	1971-73
Bow River at Massive, Banff National Park	1973-76
Bow River at Outlet of Bow Lake, Banff National Park	1973-76
Bow River below Carseland Dam	1967-74
Bow River below Confluence with Spray R, Banff Nat. Park	1972-77
Bow River below Lake Louise	1971-76
Bow River below Mosquito Creek, Banff National Park	1971-71
Bow River near Hector Lake	1972-76
Bow River near Mouth	1967-86
Bow River near Seebe	1971-74
Boyer River at Hwy 58A about 40 Miles East of High Level	1969
Brazeau River Below Powerhouse	1971-74
Brewster Creek abv Confluence with Douglas Ck. near Banff	1972-74
Brewster Creek at Hwy 1 near Mouth, Banff National Park	1973-85
Buck Creek above Hwy 93 Road Crossing, Jasper Nat. Park	1976
Buck Creek approx. 100 m below Hwy 93, Jasper Nat. Park	1976
Buck Creek at the Mouth, Jasper National Park	1976
Cabin Creek near Seebe, Marmot Creek Research Basin	1963-79
Cache Percotte Stream at Flume	1971-72
Cadotte River near Mouth	1969-71
Cameron Creek at Mouth, Waterton Lakes National Park	1974-75
Cameron Ck at Outlet of Cameron L, Waterton Nat. Park	1973-76
Cameron Ck Below Cameron Falls, Waterton National Park	1971-76
Cameron Ck SW of Crandell L, Waterton Lakes National Park	1973-76
Cameron Lake, Waterton Lakes National Park	1971
Caribou River East of Rocky Lane	1969-74
Cascade River above Lake Minnewanka, Banff National Park	1973-76
Cascade River at Outlet of Lake Minnewanka	1971-76
Cascade River at Tunnel Mountain Road, Banff Nat. Park	1975-76
Castle River at Hwy 3 near Cowley	1971-74
Castle River near Beaver Mines	1964-77
Chinchaga River West of Paddle Prairie	1969-73
Clear River near Bear Canyon	1971-74
Clearwater River above Fort McMurray	1967-78
Clearwater River above Limestone Creek	1964-72
Clearwater River at Forestry Trunk Road	1971-73
Clearwater River at Rocky Mountain House	1964-77
Clearwater River at Upper Wingdam	1972-74

Corral Creek at Highway 1A, Banff National Park	1975-75
Crandell Lake, Waterton Lakes National Park	1971
Crooked Creek at Hwy 5, Waterton Lakes National Park	1972-75
Crowfoot Creek near Cluny	1970-73
Crowsnest River at Frank	1971-77
Crowsnest River East of Coleman	1964-77
Crowsnest River near Cowley	1971-73
Crowsnest River near Lundbreck	1971-73
Crowsnest River West of Coleman	1964-77
Cuthead Lake, Banff National Park	1972
Deeklick Creek near Hinton	1971-75
Elbow River at Bragg Creek	1964-77
Elbow River at McDonald Bridge	1969
Elbow River at Twin Bridges near Calgary	1971
Elbow River below Glenmore Dam, Calgary	1976-74
Eunice Creek near Hinton	1971-75
Fiddle River 5 km below Sulphur Creek	1976
Firebag River Near Mouth	1969
Fish Creek near Midnapore	1972
Forth Mile Creek Near the Mouth, Banff National Park	1973-76
Galwey Creek at Hwy 6, Waterton Lakes National Park	1974-76
Ghostpine Creek near Huxley	1971-73
Ghost River at Hwy 1A near Mouth	1971-74
Grouse Lake, Also Known as Fagan Lake	1972
Harrison Lake, Banff National Park	1972
Hay River at Indian Cabins	1971-85
Hay River near Meander River	1969-74
Heart River near Nampa	1971-73
Hell-Roaring Ck at the Mouth, Waterton Lakes Nat. Park	1973-75

Herbert Lake near Hwy 93 Northwest of Lake Louise	1971-73
Highwood River at Diebels Ranch	1964-77
Highwood River at Hwy 2 Crossing near Aldersyde	1971-74
Hines Creek near Fairview	1971-73
Horseshoe Lake, Jasper National Park	1971-73
Hotchkiss River at Hotchkiss	1969-73
Howse River 0.15 Mile above Mouth, Banff National Park	1973-76
House River near Mouth	1969
Johnston Creek at Hwy 1A Bridge, Banff National Park	1972-76
Kananaskis R above Marmot Ck, Marmot Ck Research Basin	1963-78
Kananaskis River at Kananaskis	1964-74
Keg River at Key River Cabins	1969-73
Keoma Lake	1971-72
Kneehills Creek Near Drumheller	1971-73
Knights L at Mouth of Dardanelles, Waterton National Park	1974-75
Ksituan River West of Spirit River	1971-74
Lake Athabasca between Potato Island and Ft Chipewyan, about 3/4 Mile South of Fort Chipewyan	1969
Lake Athabasca, Midpoint at Fort Chipewyan	1969
Lake Athabasca, Midpoint between Bustard Island and Athabasca River Delta about 15 Miles E of Ft Chipewyan	1969
Lake Claire, Northwest Bay	1969
Lake Claire, Southeast Bay	1969
Lake Edith, Jasper National Park	1971-73
Lee Creek at Beazer	1974-78
Lee Creek at Carston	1971-74
Lesser Slave River at Slave Lake	1971-74
Lesser Slave R near Mouth, approx. 7 Miles NW of Smith	1969
Lineham Brook near Mouth, Waterton Lakes National Park	1974-75
Linnet Lake North of Waterton Lake, Waterton Nat. Park	1972-73
Little Bow River at Hwy 25 near Turin	1971-77

Little Bow River at Hwy 23, 1 mile NW of Carmengay	1971-73
Little Herbert Lake, Banff National Park	1971-73
Little Red Deer River at Red Lodge Provincial Park	1971-74
Little Red Deer River near Cremona	1973-74
Little Red Deer River near Water Valley	1971-72
Little Smoky River at Hwy 43, Little Smoky	1969-74
Little Smoky River South of Guy	1969-74
Lobstick River at Wildwood	1971-74
Lost Lake, Banff National Park	1971
Louise Creek at lower Crossing of Lake Louise Road, Banff National Park	1975-76
Louise Creek at upper Crossing of Lake Louise Road, Banff National Park	1975-76
Lower Carthew Lake, Waterton Lakes National Park	1971
Lower Twin Lake, Waterton Lakes National Park	1971
Lower Waterton Lake at Wishbone, Waterton National Park	1971-73
Lower Waterton Lake E-NW of Linnet L, Waterton Nat. Park	1974-75
Lower Waterton Lake, South of Catholic Campsite, 300 m from North Shore, Waterton Lakes National Park	1974-75
Main Deek Creek, Deer Creek Research Basin	1971-73
Maligne R. Approx. 0.2 km abv the Mouth (at 6th bridge), Jasper National Park	1972-76
Maligne River below Maligne Canyon at 5th Bridge, Jasper National Park	1976
Maligne River 4 km below Maligne Lake (at 2nd bridge), Jasper National Park	1976
Maligne R above Maligne Canyon at 4th Bridge Crossing, Jasper Nat. Park	1976
Maligne River above Medicine Lake, Jasper National Park	1976
Maligne River at Outlet of Maligne L, Jasper Nat. Park	1976
Maligne River at Outlet of Medicine L, Jasper Nat. Park	1974-76
Marmot Creek Main Stem, Marmot Creek Research Basin	1963-79
Medicine River near Eckville	1971-74
Meikle River at Hwy 35, 5 Miles North of Hotchkiss	1969
McLeod River at Hwy 16	1969-74
McLeod River at Whitecourt	1966-74
McLeod River south of Edson at Hwy 47	1971-74
Middle Fork Ck in Cirque near Seebe, Marmot Ck Basin	1963-78

Middle Fork Creek Near Seebe, Marmot Ck Research Basin	1963-79
Miette River above Geikie, Jasper National Park	1974-76
Miette River approx. 4 km above Hwy 16 Road Crossing, Jasper National Park	1976
Miette River at Hwy 16, W of Jasper, Jasper Nat. Park	1976
Miette River at the Mouth at Hwy 93A, Jasper Nat. Park	1972-76
Miette River below Decoigne Warden Station, Jasper Park	1976
Milk River at Milk River	1971-74
Mistaya River .15 Mile above Mouth	1972-76
Montagneuse River near Hines Creek	1971-74
North Saskatchewan River at Devon	1977-87
North Saskatchewan River at Edmonton	1960-74
North Saskatchewan River at Fort Saskatchewan	1971-73
North Saskatchewan River at Saskatchewan Crossing, Banff National Park	1971-77
North Sask. River at Hwy 93 about 1 Mile below Arctomys Creek, Banff National Park	1973-76
North Sask. River at Hwy 93 Between Cirrus Mountain & Mount Sask., Banff National Park	1972-76
North Saskatchewan River at Pakan	1977-87
North Saskatchewan River at Lloydminster Ferry	1971-73
North Saskatchewan River at Saunders	1964-73
North Saskatchewan River at Secondary Road 938	1974-77
North Saskatchewan R. near Drayton Valley	1971-74
North Saskatchewan River near Rocky Mountain House	1966-77
North Summit Lake, Jasper National Park	1973
Notikewin River at Manning	1969-74
Oldman River 2 miles North of Cowley	1966
Oldman River at Forestry Trunk Road	1971-72
Oldman River at Hwy 36 North of Taber	1967-86
Oldman River near Brocket	1971-73
Oldman River near Fort Macleod	1960-74
Oldman River near Lethbridge	1966-86
Oldman River near Monarch	1966-74
Oldman River near Mouth	1971-72
Oldman River near Waldron's Corners	1964-78
Paddle River near Rochefort Bridge	1971-73
Patricia Lake near Jasper	1971-73
Peace River at Fort Vermilion	1967-74
Peace River at Peace Point	1967-77
Peace River at Peace River	1960-74

Pelican River near Mouth	1969
Pembina River at Entwistle	1966-77
Pembina River at Jarvie	1967-77
Pembian River at Manola below Paddle River	1972-73
Pembina River below Paddy Creek	1971-74
Pine Lake, North Basin, Wood Buffalo National Park	1974
Pine Lake, South Basin, Wood Buffalo National Park	1974
Pipestone R at Bow Drive, Lake Louise, Banff Nat. Park	1975-76
Pipestone River at Hwy 1 near the Mouth, Banff Nat. Park	1972-76
Poboktan Creek above Warden Station, Jasper National Park	1976
Poboktan Creek at Hwy 93, Jasper National Park	1972-76
Ponton River at Rocky Lane	1969-74
Pyramid Lake North of Jasper	1971-73
Red Creek at Hwy 4 North of Coutts	1972-73
Red Deer River at Drumheller	1960-87
Red Deer River at Forestry Trunk Road	1971-73
Red Deer River at Hwy 2 above Red Deer	1977-87
Red Deer River at Jenner Ferry	1971-73
Red Deer River at Red Deer	1960-74
Red Deer River near Sundre	1963-78
Redearth Creek at Hwy 1 Bridge, Banff National Park	1972-76
Redwater River East of Redwater	1971-74
Ribstone Creek near Edgerton	1971-73
Richardson Lake Southwest of Chipewyan Indian Reserve	1969
Ripple Creek above Ripple Lake Jasper National Park	1976
Ripple Creek below Ripple Lake, Jasper National Park	1976
Ripple Creek at Snowmobile Tours Staff Residence Road, Jasper National Park	1976
Ripple Creek Opposite Icefields Information Centre, Jasper National Park	1976
Rocky River at Hwy 16 Bridge about 0.2 Mile above Mouth, Jasper National Park	1972-76
Rosebud River at Hwy 21 near Redland	1971-74
Rosebud River at Rosedale	1974
Sage Creek near Wildhorse	1971-76

Salt River at Entrance to Wood Buffalo National Park	1969-73
Sand River near Mouth	1971-74
Sheep River at Buck Ranch (at Sandy McNabb Campgrounds)	1967-73
Sheep River at Okotoks	1971-74
Simonette River about 5 Miles South of Goodwin	1969
Simonette River near Goodwin	1971-73
Smoky River above Hells Creek	1970-74
Smoky River at Watino	1967-87
Smoky River East of Bezanson	1969-74
Smoky River near Grande Cache	1972-74
Snake Indian River about 1.2 miles above Devona Flats, Jasper National Park	1972-75
Snaring R at Hwy 16 Bridge about 0.58 Mile abv the Mouth, Jasper National Park	1972-76
Snowflake Lake South of Red Deer River	1971-72
Sounding Creek near Monitor	1971-74
South Saskatchewan River at Hwy 41	1968-87
South Saskatchewan River at Medicine Hat	1960-74
Spray River 0.1 Mile above Mouth, Banff National Park	1972-76
Spray R below Confluence with Goat Ck, Banff Nat. Park	1973-76
St. Mary River near Cardston	1971-74
St. Mary River near Lethbridge	1971-74
Steen River near Steen river	1969-74
Streeter Creek main stem near Nanton	1971-74
Sturgeon River Near Mouth	1971-74
Sulphur Creek above Confluence with Fiddle River, Jasper National Park	1976
Sulphur Creek above Miette Hot Springs, Jasper Nat. Park	1976
Sulphur Creek above Miette Hot Springs Road Crossing, Jasper National Park	1976
Sulphur Creek approx. 150 m below Miette Hot Springs Road Crossing, Jasper National Park	1976
Sulphur Creek below Miette Hot Springs Road Crossing, Jasper National Park	1976
Sunwapta River above Sunwapta Falls, Jasper Nat. Park	1971-76
Sunwapta R Approx. 6.1 km below Beauty Ck, Jasper Park	1973-76
Sunwapta River at Athabasca Glacier	1971-76
Sunwapta R at Shivers and Goosebumps Bridge, Jasper Park	1976
Sunwapta River below Sunwapta Lake, Jasper National Park	1976

Swan River at Kinuso	1967-74
Tangle Creek above Work Compound, Jasper National Park	1976
Tangle Creek below Work Compound, Jasper National Park	1976
Twin Creek near Seebe, Marmot Creek Research Basin	1964-79
Upper Rowe Lake, Waterton Lakes National Park	1971
Upper Waterton L at Bertha Bay, Waterton Lakes Nat. Park	1972
Upper Waterton Lake at Boundary Bay, Waterton Lakes Park	1971-72
Upper Waterton Lake at Crypt Landing, Waterton Lakes Park	1972
Wabasca River at Wadlin Lake Road	1969-77
Wampus Creek near Hinton	1971-75
Wapiti River at Hwy 40 South of Grande Prairie	1969-77
Waskahigan River at Hwy 43 Bridge, 0.1 Mile above Little Smoky River	1969-74
Waterton L abv the Dardanelles Stretch, Waterton Park	1972-75
Waterton Lake at Bosphorus, Waterton Lakes National Park	1972-75
Waterton L at Cameron Bay, Waterton Lakes National Park	1972
Waterton Lake at International Boundary, Waterton Park	1972-75
Waterton Lake at Waterton, Waterton Lakes National Park	1974-75
Waterton Lake South of Waterton, Waterton Lakes Nat. Park	1974-75
Waterton River near Stand Off	1971-74
Whirlpool River at Hwy 93A, Jasper National Park	1972-76
Whiskey Jack Stream at Flume	1971-72
Whitemud River near Dixonville	1969-74
Willow Creek 7 miles SW of Claresholm	1971-74
Willow Creek at Hwy 2 near Nolan	1971-74
Wolf Creek at Hwy 16 Crossing	1971-74
Wolverine River near Mouth	1969
Vermillion River at Lea Park	1971-74
Vermillion River near Mannville	1964-74

APPENDIX B

DISCONTINUED WATER QUALITY SAMPLING SITES

SASKATCHEWAN

Adair Creek near Mouth at Ellisboro	1970-71
Antler River, 6.4 km East of Carnduff	1971
Antler River between Carnduff and Carievale	1973
Arm River near Bethune	1970-72
Assiniboine River above Whitesand River	1968-74
Assiniboine River at Kamsack	1966-74
Avonlea Ck. at Outlet of Avonlea Reservoir	1972-73
Battle Ck. near U.S. Boundary, SE of Consul	1974-87
Beaver River 16.1 km below Junction of Waterhen River	1970-78
Beaver River above Beauval	1976-86
Birch River below Cumberland Marshes Dam, near Cumberland House	1979-84
Boundary Res. 20 m from a Point on North Shore near Bay, Approaching Grid Road	1975-76
Boundary Res. at Centre of First Bay approx. 2.4km North of Grid Road Bridge, South End	1975-76
Boundary Res. at Centre of South End, approx. 8.0 km North of Grid Road Bridge	1975
Boundary Res. at Grid Road Bridge, at Southern end of the Reservoir	1975
Boundary Reservoir on Center Transect Line Perpendicular to Boat Launching Ramp, South End	1975
Boundary Reservoir on Centre Transect Line Perpendicular to First Point of Land on E. Side, 1.6 km North of House Boat Marina	1975-76
Boundary Reservoir on Centre Transect Line Perpendicular to House Boat Marina	1975-76
Boundary Reservoir on Centre Transect Line Perpendicular to Major Point of Land on W Side, 2.4 km S of Park	1975
Boundary Reservoir on Centre Transect Line Perpendicular to Pump House at North End	1975-76

Boundary Reservoir on Centre Transect Line Perpendicular to Regional Park, North End	1975-76
Buffalo Pound Lake at Hwy 2 Crossing	1968-78
Carrot River near Smoky Burn	1966-74
Carrot River near Turnberry	1973-87
Chipman River above Black Lake	1973-74
Churchill River above Dipper Rapids	1971-72
Churchill River at Island Falls	1960-74
Churchill River at Otter Rapids	1971-86
Churchill River at Outlet of Wintego	1973-74
Churchill River below Wasawakasik	1974-87
Churchill River below Nistowiack lake	1973-74
Churchill River near Patuanak	1973-86
Cookson Reservoir, Lower End Near Coronach	1977-79
Cookson Reservoir, Upper End Near Coronach	1977-79
Cree lake at Cable Bay	1971-73
Cree River at Outlet of Wapata Lake	1972-73
Cutarm Creek near Mouth	1970-72
Davin Basin	1971-72
Deerhorn Creek at Hwy 8 Bridge North of Spyhill	1971
Dillon River at Outlet of Dillon Lake	1973-74
Doghide River North of Tisdale	1968-74
Dore River, 2 km above Junction of Beaver River	1970-73
Douglas River approx. 16.1 km below Cluff Creek	1975-85
Dragline Channel below WSC Control Struc. nr Squaw Rapid	1979-84
Eagle Creek at Grid Road Bridge about 6.4 km W of Environ	1974-78
East Fork of Middle Poplar River, SE of Rockglen	1974-79
East Poplar R 3.2km N of U.S. Border, 1.6 km W of Hwy 36	1974-75
East Poplar River 4.8 km East of Coronach at Hwy 36	1974-75
Echo Creek near Mouth at Hwy 10	1970-72
Ekapo Creek near Mouth	1970-72

Fahlman Creek 1.6 km South and 5.6 km West of Davin	1974
Foam Lake, Northwest End	1971
Foster River above Churchill River	1972-74
Frenchman River at the 49th Parallel	1979-87
Frenchman River at International Boundary	1960-79
Gainsborough Creek at Gainsborough	1972-74
Giekie River below Junction of Wheeler R.	1971-86
Haultain R. above Junction of Churchill R.	1971-74
Indian Head Creek near Mouth	1970-72
Ironspring Creek at Grid Road Bridge, about 8km South and 3.7 km East of Hwy 6, near Watson	1974
Jumping Deer Creek near Mouth	1970-72
Kaposvar Creek near Mouth	1970-72
Keeley River at Outlet of Keeley Lake	1972-73
Keeley River at Resource Road above Confluence with Outlet from Durocher Lake	1970-71
Kenosee Lake at Kenosee North of Clarks Beach	1971
Lac La Ronge at La Ronge	1972-74
Lake Athabasca near Crackinstone Point	1972-74
Lake Diefenbaker at Douglas Park	1970-71
Lanigan Creek near Mouth at Hwy 15	1972
La Plonge R at Mission School, 2km below Lac La Plonge	1970-71
Last Mountain Lake at Outlet at Railway Causeway	1970-74
Lewis Creek near Mouth below Imperial	1970-71
Little Kenosee Lake, North End	1971
Lodge Creek at Alberta Boundary	1971-74
Lodge Creek near Willow Creek	1975-87

Long Ck 6km SW of Border Crossing, nr Noonan, N.D., U.S.	1975-84
Long Creek at Eastern Crossing of U.S. Boundary	1972
Long Creek at Mouth above Estevan Water Treatment Plant	1975-78
Long Creek near Estevan	1960-75
Long Creek South of Torquay	1960-84
Loon Creek above Mouth at Grid Road	1970-72
McFarlane River at Outlet of Davy Lake	1969-82
Middle Fork Poplar River Southeast of Rock Glen	1974-79
Montreal River at Outlet of Bogstone Lake	1972-77
Moose Jaw River above Moose Jaw Forces Base Effluent Entry, Moose Jaw	1972
Moose Jaw River above Moose Jaw at Hwy 2	1966-74
Moose Jaw River at 8 km Dam, Moose Jaw	1972-73
Moose Jaw River at Gulf Dam	1971-73
Moose Jaw River at Hwy 6 below Milestone	1972-73
Moose Jaw R. at Junction of Thunder Creek in Moose Jaw	1974
Moose Jaw R. at Kingsway Bridge, Moose Jaw	1972-73
Moose Jaw R. at Manitoba Street Bridge at Coronation High Pressure Dam, Moose Jaw	1972-73
Moose Jaw River at Manitoba Street Bridge at C.P.R. Dam, Moose Jaw	1970-73
Moose Jaw River at Neilsen's Greenhouse, Moose Jaw	1972-73
Moose Jaw River at Sioux Bridge, Moose Jaw	1972
Moose Jaw River at Wild Animal Park Bridge, Moose Jaw	1972-73
Moose Jaw River below Moose Jaw at Hwy 301, Burdick	1968-78
Moose Jaw River below Moose Jaw Effluent Entry, Moose Jaw	1972-73
Moose Jaw River below Moose Jaw Forces Base Effluent Entry, Moose Jaw	1972-73
Moose Jaw River near Eastview	1972-73
Moose Jaw River near Mouth	1970-74
Moose Jaw River West of Rouleau	1972-73
Moose Mountain Creek near Oxbow	1972-77
Mudjatic River near Forcier Lake	1972-77
Nickel Lake at Centre of Lower End	1975
Nickel Lake at Centre, Just Under Southern Most Power Line Crossing, Approx. 1.1 km North of Regional Park	1975
Nickel Lake at Centre, Perpendicular to Boat Launching Site in Park	1975-76
Nickel Lake at Centre, Perpendicular to 2n Point of Land on East Side of Lake, North of Boat Launching Site	1975-77
Nickel Lake at Southern End	1975-76
Nickel Lake in Centre of First Bay, East of Rinfret Ck Confluence, North End	1975
North Saskatchewan River at Cecil Ferry	1968-79
North Saskatchewan River at Hwy 3 Bridge	1971-82

DISCONTINUED WATER QUALITY SAMPLING SITES -- SASKATCHEWAN Page B-5

North Saskatchewan R. at Hwy 5 near Borden	1968-74
North Saskatchewan R. at North Battleford	1960-74
North Saskatchewan R. at North Cecil Ferry	1974
North Saskatchewan R. at Prince Albert	1966-78
North Saskatchewan R. East of Prince Albert	1968-74
Notukeu Creek near Gravelbourg	1966-74
Pearl Creek near Killaly at Hwy 22	1970
Pearl Creek near Mouth at Hwy 47	1970
Pheasant Creek near Mouth	1970-72
Porcupine River at Outlet of Grove Lake	1973-74
Porter Lake at Crew Cabin	1972-73
Qu'Appelle River above Pasqua Lake	1969-83
Qu'Appelle River above Round Lake	1970-72
Qu'Appelle River above Wascana Creek	1968-74
Qu'Appelle R. at Grid Road North of Keeler	1970-72
Qu'Appelle River at Hwy 6 Crossing	1968-79
Qu'Appelle River at Hwy 9 Bridge	1968-78
Qu'Appelle R. at Hwy 47 North of Grenfell	1968-74
Qu'Appelle River at Lumsden	1964-74
Qu'Appelle River at Outlet of Buffalo Pound Lake	1968-74
Qu'Appelle River at Outlet of Katepwa Lake	1968-83
Qu'Appelle River at Outlet of Mission Lake near Lebret	1970-73
Qu'Appelle River at Outlet of Pasqua Lake at Hwy 210	1970-74
Qu'Appelle River at Qu'Appelle Dam	1968-74
Qu'Appelle River at Tantallon	1960-74
Qu'Appelle River below Craven	1968-74
Qu'Appelle R below Crooked L. at Marieval	1970-74
Qu'Appelle R below Ft Qu'Appelle at Hwy 10 abv Mission L	1970-74
Red Deer River at Erwood	1966-87
Reed Lake, 1.6 km South of Morse	1971
Reindeer R at Outlet of Reindeer Lake at Whitesand Dam	1967-77
Reindeer River near the Mouth	1973-74
Roughbark Creek at Mouth, approx. 2.4 km West of Midale	1975-77
Sandy Beach Creek at Hwy 56 below Balcarres	1970-71
Saskatchewan River at Hwy 35 Bridge, Nipawin	19678-74
Saskatchewan R blw Squaw Rapids, blw Tobin Lake Res.	1967-74
Saskatchewan River North of Gronlid	1968-74
Short Creek at Mouth on Grid Road West of Roche Percee	1975-76

Souris River at Grid Road Bridge, 1.5 km South of Lewvan	1976
Souris River at Grid Road Bridge, 3.2 km above Weyburn	1975-76
Souris R at Grid Road Bridge, approx. 2.4 km S of Shand	1975-76
Souris River at Grid Road Bridge, approx. 8.9 km SE of Weyburn below Effluent	1975-76
Souris R. at Hwy 18 Bridge, above Long Ck.	1975-76
Souris River at Hwy 39, 1.0 Miles East of Roche Percee	1978-79
Souris River at Hwy 39, near U.S. Border	1973
Souris R below Nickel Lake Dam, approx. 46 m South of Dam	1975-76
Souris R below Roughbark Creek at Grid Road Bridge approx. 2.4 km SE of Midale	1975-76
Souris River near Estevan	1960-74
Souris River near Glen Ewen	1960-87
Souris River South of Bienfait	1968-75
Souris River West of Halbrite	1968-75
South Sask. R. 16.1 km above Saskatoon	1972-73
South Saskatchewan R. at Birch Hills Ferry	1968-78
South Saskatchewan River at Clarkboro Ferry	1968-78
South Saskatchewan River at Gabriel Ferry	1968-74
South Sask. R. at Hwy 3 SE of Prince Albert	1978-79
South Sask. River at Hwy 15 near Outlook	1968-74
South Sask. River at Saskatchewan Landing	1970-74
South Saskatchewan River at Saskatoon	1960-74
South Saskatchewan River at St. Louis	1966-74
South Saskatchewan River near Lemsford	1965-74
Squaw Coulee Creek near Willow Creek	1975-78
Swiftcurrent Creek above Swift Current	1968-74
Swiftcurrent Creek at Swift Current	1966-74
Swiftcurrent Creek at Waldeck	1968-74
Swiftcurrent Creek near Stewart Valley	1968-78
Tazin Lake near Outlet of Tazin River	1973
Thompson Creek near Mouth Below Sintaluta	1970-71
Thunder Creek above Moose Jaw	1970-72
Thunder Creek at Feedlot	1971
Thunder Creek at Mouth	1972-73
Thunder Creek under Viaduct, Moose Jaw	1972
Torch River near Love	1966-74
Wascana Creek above Qu'Appelle River	1965-78
Wascana Creek above Regina Lagoon at Risks Farm	1970-72
Wascana Creek at Albert St. Bridge, Regina	1972
Wascana Creek at Broad St. Bridge, Regina	1972
Wascana Ck. at Dewdney Ave. Bridge, Regina	1972
Wascana Creek at Hwy 1 By-Pass, Regina	1972
Wascana Creek at Old Crossing	1968-74

Wascana Creek at Pasqua St. Bridge, Regina	1972
Wascana Creek below Lagoon and above Old Crossing (Sherwood Forest)	1972
Wascana Creek near Richardson at East-West Line Road	1970-72
Waterbury Lake at Crew Cabin	1972-74
Watershed A, Swift Current	1971-72
Watershed A1, Swift Current	1971-72
Watershed A2, Swift Current	1971-72
Watershed A3, Swift Current	1971-72
Watershed A4, Swift Current	1971-72
Watershed B, Swift Current	1971
Wathaman River below Wathaman Lake	1972-77
West Poplar R. near International Boundary	1975-79
Wheeler River below Russell Lake	1973
Whitesand River above Assiniboine River	1968-73
Whitesand R. at Hwy 5 Bridge E. of Canora	1968-74
Whitesand River at Hwy 9 North of Garlitz	1968-74
Whitesand River North of Springside	1968-74
Wollaston Lake at Ross Channel	1972-82
Wollaston Lake at Trading Post	1971-72
Wood River near Gravelbourg	1969-74
Wood River near Lafleche	1969-74
Wood River South of Coderre	1975-77



APPENDIX C

DISCONTINUED WATER QUALITY SAMPLING SITES

MANITOBA

Antler River near Coulter at Hwy 251	1963-84
Assiniboine R 0.8km above Treesbank Ferry above Souris R	1973-75
Assiniboine River at Brandon	1960-78
Assiniboine River at Bridge on Hwy 100 near Chareswood	1971-78
Assiniboine River above Portage La Prairie at Ft La Reine	1973-75
Assiniboine River at Portage La Prairie	1960-75
Assiniboine River near Rivers Camp	1962-74
Assiniboine River West of Russell at Hwy 4	1960-74
Badger Creek at Cartwright	1963-84
Barrington River West of Opachuanau Lake	1972-74
Berens River at Mouth, Berens River	1969
Berens River at Outlet of Long Lake	1969-74
Black River at Hwy 304 Bridge near Manigotagan	1969
Bosshill Creek at Outskirts of Elkhorn Off Hwy 256, 4.8 km South of Hwy 1	1971
Brokenhead River at Hwy 59 Bridge near Scanterbury	1969
Brokenhear River near Beausejour	1970-74
Burntwood River above Threepoint Lake	1971-74
Burntwood River near Thompson	1967-78
Churchill River above Granville Falls	1971-78
Churchill River above Opachuanau Lake	1975-78
Churchill River at Fort Churchill Fresh Water Intake	1960-75
Churchill River below Fiddler Lake	1969-78
Churchill River near Leaf Rapids	1972-74
Cross Lake below West Channel of Nelson R.	1973-74
Crystal Creek at Crystal City	1963-73

Cypress Creek at Highway 34	1963-77
Dauphin River, 8 km Upstream of Anama Bay	1968-78
Devil Creek South of Libau	1969
Fairford River near Fairford	1967-74
Fisher River at Bridge off Hwy 224 North of Dallas	1969-74
Footprint River above Threepoint Lake	1971-74
Gainsborough Creek at Hwy 83, 1.92 km above Mouth	1973-83
Gainsborough Creek at Melita	1964-73
Gauer River above Thorsteinson Lake	1971-74
Gods River at Outlet of Gods Lake	1967-78
Graham Creek at Hwy 83 Bridge	1975-76
Grass River above Standing Stone Falls	1972-74
Icelandic River at Hwy 8 Bridge South of Riverton	1969
Jackson Creek 3.2 km North of Melita off Hwy 83	1975-76
Kettle River near Gillam	1972-73
Lake Winnipeg at Victoria Beach	1961-74
Limestone River near Bird	1972
Little Beaver River above Junction with the Churchill R	1971-74
Little Churchill River above Recluse Lake	1971-74
Minnedosa River near Rivers	1962-74
Mossy River near Outlet of Lake Dauphin	1967-78
Nelson R.(East Channel) at Warrens Landing	1969-72
Nelson R.(West Channel) at Jenpeg	1972-75
Nelson R.(West Channel) at Kispachewuk Rapids	1972-73
Nelson R.(West Channel) at Warrens Landing	1969-77
Nelson River above Bladder Rapids	1971-77

Nelson River at Cross Lake	1972-74
Nelson River at Eves Falls	1972-73
Nelson River at Kelsey Generating Station	1965-78
Nelson River at Kettle Crossing Generating Station	1972-87
Nelson River at Norway House	1972-74
Nelson River at Outlet of Split Lake	1972-73
Nelson River below Sea River Falls	1971-72
Nelson River below Sipiweesk Lake	1972-74
Nelson River near Mouth (above Weir River)	1979-87
Netley Creek at Hwy 9 Bridge at Petersfield	1969
North Seal River below Stoney Lake	1972-74
O'Hanly R. at Hwy 304 Bridge near Pine Falls	1969
Oldman River above Northern Indian Lake	1971-74
Osier (Willow) Creek at Hwy 8 bridge near Gimli	1969-73
Overflowing River at Hwy 10	1974-84
Pembina River near Killarney	1962-74
Pembina River near Swan Lake	1962-74
Pigeon River at Outlet of Round Lake	1969-74
Pine Creek Diversion at Hwy 89	1972-85
Pipestone Ck 0.25 Mile From Cromer off Bridge on Hwy 255	1974-87
Plum Creek at Mouth, Souis	1975-76
Poplar River at Outlet of Weaver Lake	1969-74
Qu'Appelle River at St. Lazare	1969-75
Rat River above Threepoint Lake	1971-74
Red River at Selkirk	1960-78
Red Deer R. near Mouth at Lake Winnipegosis	1967-74
Sandy River at Hwy 304 Bridge near Manigotagan	1969
Sasaginnigak Lake	1970
Saskatchewan River at The Pas	1961-74
Saskatchewan River below Grand Rapids Power Plant near Grand Rapids	1969-78

Seal River below Great Island	1972-78
Smitch Creek at Bridge near Confluence	1971
Snowflake Creek at Hwy 201 at Snowflake	1974-77
Souris River at Coulter	1960-87
Souris River at Hwy 3, Melita	1975-76
Souris River at Hwy 344, below Wawanesa	1975-76
Souris River at Hwy 345 Bridge	1975-76
Souris River at Hwy 348 Bridge	1975-76
Souris River at Hwy 454 Bridge	1975-76
Souris River at Hwy 747, Napinka	1975
Souris River at Souris	1973-76
Souris River at Treesbank	1973-76
Souris River at Wawanesa Dam, Manitoba	1962-78
South Seal River above Fox Lake	1972-74
Southern Indian Lake above Missi Falls	1973-78
Southern Indian Lake at South Indian Lake	1972-73
Split Lake at Split Lake	1972-74
Sprague Creek near Sprague	1972-78
Swan River at Hwy 10	1974-84
Swan River at Minitonas Lake	1966-74
Taylor River near Thompson	1971-74
Wanipigon River below English Brook above Currie Landing near Manigotagan	1969
Waterhen River below Waterhen	1966-78
Wavey Ck. at Hwy 9 Bridge near Petersfield	1969
Whitemud Creek at Cartwright	1963-73
Whitemud River near Woodside	1967-74
Winnipeg River at Pine Falls Inlet of Water Station	1973
Winnipeg River at Slave Falls	1966-74
Winnipeg R below Pine Falls Power Plant near Pine Falls	1960-74
Woody River at Hwy 10	1974-84